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THE THERMODYNAMIC PROPERTIES OF NITROGEN FROM 64 TO 300° K BETWEEN 0.1 AND 200 ATMOSPHERES

THOMAS R. STROBRIDGE

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

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THE THERMODYNAMIC PROPERTIES OF NITROGEN FROM 64 TO 300°K BETWEEN 0.1 AND 200 ATMOSPHERES

by

Thomas R. Strobridge

ABSTRACT

The internal energy, enthalpy, entropy, and specific volume of molecular nitrogen are derived and tabulated as functions of temperature and pressure. In addition to a mathematical model for the pressure-volume-temperature surface, accurate functions are given for the representation of the vapor pressure, density of saturated liquid, specific heat of saturated liquid, and the specific heat at zero pressure.

Tabular values in British units over the same pressure and temperature range are available as Supplement A of this Technical Note.

1. INTRODUCTION

Cryogenic process calculations involving molecular nitrogen as a refrigeration medium require a continuous set of data over a wide pressure and temperature range. Such data in tabulated form suitable for digital computer use are not available in the literature. Experimental data from the literature were correlated and analytical expressions for the representation of certain properties were derived. These expressions were then used to generate tables of values of internal energy, enthalpy, entropy, and specific volume as functions of pressure and temperature.

2. SYMBOLS

R	-	Gas constant in liter atm/gm-mol°K
P	-	Pressure in atmospheres
T	-	Temperature in degrees Kelvin
V	-	Molar volume in liter/gm-mol.
ρ	-	Density in gm-mol/liter
Z	-	Compressibility factor, $\frac{PV}{RT}$.
U	-	Internal energy.
H	-	Enthalpy
S	-	Entropy
°K	-	Degree Kelvin
°C	-	Degree Celsius
T_o	-	Temperature at saturation at 1 atm (77.364°K)
$j_1, j_2 \ldots$	-	Coefficients for vapor pressure
$k_1, k_2 \ldots$	-	Coefficients for density of saturated liquid
$\ell_1, \ell_2 \ldots$	-	Coefficients for specific heat of saturated liquid
$m_1, m_2 \ldots$	-	Coefficients for specific heat at zero pressure
$n_1, n_2 \ldots$	-	Coefficients for model of PVT surface

ℓn - Natural logarithm

Subscripts

sat - Saturated liquid state

p - Constant pressure

ρ - Constant density or a state at density ρ

T - Constant temperature or a state at temperature T

v - Constant volume

vap - Vaporization

Superscript

o - Ideal gas state or zero pressure

3. VALUES USED FOR SOME PHYSICAL CONSTANTS AND CONVERSION FACTORS

$$R = 8.20574\ (10^{-2})\ \text{liter atm/gm-mol°K}$$

$$1\ \text{atmosphere} = 1.013250\ (10^{6})\ \text{dynes/cm}^2$$

$$0°C = 273.15°K$$

$$\text{Molecular weight of Nitrogen} = 28.016$$

$$1\ \text{joule} = 9.86896\ (10^{-3})\ \text{liter atm}$$

4. VAPOR PRESSURE

An accurate representation of the vapor pressure-temperature relationship from the triple point to the critical point was needed for interpolation between experimental data and for obtaining the derivative, $\frac{dP}{dT}$, along the two-phase boundary. Experimental values for the

critical pressure and temperature have been published by White, Friedman, and Johnston [1951]. Armstrong [1954], and Friedman and White [1950] have published vapor pressure data which, when combined, extend from the triple point up to within 1 K° of the critical temperature. These sources of data were chosen from those available because of the apparently reasonable agreement in temperature scales used and the consistency of the three sets of data. A total of 91 points was then available for consideration.

The constants for (1) were found by the method of least squares [Jones, 1962].

$$\text{Log}_{10}P(\text{atm}) = j_1 + j_2/T + j_3T + j_4T^2 + j_5T^3 + j_6T^4 + j_7T^5 \quad (1)$$

where $j_1 = 5.27805 \quad (10^{-1})$ $\qquad j_5 = 2.9857103 \quad (10^{-5})$

$j_2 = -3.0507339 \quad (10^{2})$ $\qquad j_6 = -1.4238458 \quad (10^{-7})$

$j_3 = 1.6441101 \quad (10^{-1})$ $\qquad j_7 = 2.7375282 \quad (10^{-10})$

$j_4 = -3.1389205 \quad (10^{-3})$

Armstrong [1954] gave an equation which represented his data with a mean absolute deviation of 0.063 mm Hg. The agreement between (1) and the Armstrong data is excellent; the mean absolute deviation is 0.061 mm Hg. Equation (1) more closely represents the data of Friedman and White [1950] than an equation given in their paper except at one observed point. The critical point (126.26 ± 0.04°K and 33.54 ± 0.02 atm) according to White, Friedman, and Johnston [1951] is approximated by (1) within the estimated errors. The temperature of the normal boiling point (77.3640 + °K) predicted by (1) agrees to five places with the figure given by Armstrong [1954].

5. DENSITY OF SATURATED LIQUID

The functional form of (2), which may be used to represent the density of saturated liquid, was suggested by Hou and Martin [1959].

$$\rho_{sat}(\text{gm-mol}/\ell) = k_1 + k_2x + k_3x^2 + k_4x^3 + k_5x^4 \quad (2)$$

where $x = \left[1 - \frac{T}{126.26} \right]^{1/3}$ and

$k_1 = 1.1230207\ (10^1)$ $\quad$ $k_4 = 2.7790397\ (10^1)$

$k_2 = 2.1082073\ (10^1)$ $\quad$ $k_5 = -1.1764704\ (10^1)$

$k_3 = -9.8177403$

Equation (2) was fitted [Jones, 1962] to the data of Mathias, Kamerlingh Onnes, and Crommelin [1914] with a maximum error of 0.85%. With the exception of two points the agreement with the data, which extend almost from the triple point to the critical point, is better than 0.13%. A deviation plot shows that the largest differences are near the critical point. The experimenters remarked that the greatest experimental difficulties occurred near the critical and that there is a larger uncertainty in the data in this region.

6. SPECIFIC HEAT OF SATURATED LIQUID

The available experimental data (65.02 to 116.99°K) on the specific heat of saturated liquid appeared to be of the lowest accuracy of the various types of data considered. The differences between (3) and the data of Giauque and Clayton [1933] and of Wiebe and Brevoort [1930] are in some instances almost 2%. There is not, however, any significant trend in the deviations which, if present, would indicate an unsatisfactory form for (3).

$$C_{sat}(j/gm\text{-}mol) = \ell_1 \frac{T}{(126.26-T)^2} + \ell_2 + \ell_3 T + \ell_4 T^2 + \ell_5 T^3 \qquad (3)$$

where $\ell_1 = 6.246881860$

$\ell_2 = 3.939006895\ (10)$

$\ell_3 = 6.821295539\ (10^{-1})$

$\ell_4 = -1.052432772\ (10^{-2})$

$\ell_5 = 6.001046981\ (10^{-5})$

The reader is cautioned against the use of (3) above 120°K.

7. SPECIFIC HEAT AT ZERO PRESSURE

The data of Goff and Gratch [1951] are represented by (4) with a maximum error of ± 1 in the fifth significant figure.

$$C_p^\circ \text{ (j/gm-mol °K)} = m_1 + m_2 T + m_3 T^2 + m_4 T^3 + m_5 T^4 \quad (4)$$

where $m_1 = 2.9109996\ (10)$

$m_2 = -8.0820995\ (10^{-4})$

$m_3 = 8.6142037\ (10^{-6})$

$m_4 = -3.6893228\ (10^{-8})$

$m_5 = 5.6750880\ (10^{-11})$

8. DATA OF STATE

Several equations were fitted to the PVT data described below in an attempt to find a functional form which would adequately describe the surface. The form chosen, (5), was greatly influenced by the modifications which Bloomer and Rao [1952] made to the Benedict-Webb-Rubin equation [Benedict, Webb, and Rubin, 1940], and by the equation given by Benedict [1937].

$$\begin{aligned} P(\text{atm}) = {} & RT\rho + \left(Rn_1 T + n_2 + \frac{n_3}{T} + \frac{n_4}{T^2} + \frac{n_5}{T^4}\right)\rho^2 + \\ & \left(Rn_6 T + n_7\right)\rho^3 + n_8 T\rho^4 + \\ & \rho^3\left(\frac{n_9}{T^2} + \frac{n_{10}}{T^3} + \frac{n_{11}}{T^4}\right) e^{-n_{16}\rho^2} + \\ & \rho^5\left(\frac{n_{12}}{T^2} + \frac{n_{13}}{T^3} + \frac{n_{14}}{T^4}\right) e^{-n_{16}\rho^2} + n_{15}\rho^6 \end{aligned} \quad (5)$$

where $R = 0.820574 \quad (10^{-1})$

$n_1 = 0.3371608442 \quad (10^{-1})$

$n_2 = -0.5771942866$

$n_3 = -0.1142108127 \quad (10^{3})$

$n_4 = 0.8522634899 \quad (10^{3})$

$n_5 = 0.3440176200 \quad (10^{7})$

$n_6 = 0.1650365874 \quad (10^{-2})$

$n_7 = 0.1578905910 \quad (10^{-1})$

$n_8 = 0.4168356912 \quad (10^{-5})$

$n_9 = 0.3211549057 \quad (10^{3})$

$n_{10} = 0.1080120452 \quad (10^{6})$

$n_{11} = -0.1066657899 \quad (10^{8})$

$n_{12} = -0.3304489192 \quad (10^{1})$

$n_{13} = 0.1223693626 \quad (10^{4})$

$n_{14} = 0.5693539048 \quad (10^{5})$

$n_{15} = 0.1675167178 \quad (10^{-5})$

$n_{16} = 0.56 \quad (10^{-2})$

and T is in °K and ρ is in gm-mol/ℓ.

Data for the density of saturated liquid and for the vapor pressure plus data from Benedict [1937], Friedman [1950], Kamerlingh Onnes and Van Urk [1924], Michels, Wouters, and DeBoer [1936], and Bartlett et. al. [1930] provided a total of 522 points on the PVT surface. Preliminary calculations indicated that five of these points were not consistent with the other data, and they were not considered in any subsequent calculations. Four of the discarded points were from Kamerlingh Onnes and Van Urk [1924]: 35.985 atm at 0°C, 47.325 atm at -23.62°C, 54.60 atm at -81.10°C, and 30.92 atm at -148.58°C. One point from Friedman [1950] was omitted: 4.8428 atm at 120.02°K. The available data then describe a surface having a temperature range from about 64 to 350°K, extending from low pressures to about 3400 atm, and having a maximum density of about 3 times the critical density. Equation (5) was fitted [Jones, 1962] to the data with a root-mean-square error in Z of 0.0087. Although the density deviations were small and thermodynamic properties calculated from this model probably would be satisfactory, it was decided to try to improve the accuracy of the desired properties by fitting (5) to only the data below 300 atm. A comparison of (5) with these 393 observations gives the following results:

Sum of squares of deviations in Z	= 0.0017
Root mean squared error in Z	= 0.0020
Average absolute error in P (excluding saturated liquid)	= 0.108 atm
Average percent error in P (excluding saturated liquid)	= 0.148%
Average absolute error in ρ	= 0.0345 gm-mol/ℓ
Average percent error in ρ	= 0.386%

The agreement between (5) and the experimental data is better in certain regions than in others. Exclusive of the saturated liquid states, there are eight points where the deviations of (5) from the observed data are greater than 1% in pressure. Four of these points are in the compressed liquid data from Benedict [1937] where $\left[\frac{\partial P}{\partial \rho}\right]_T$ is large and a very small error in density at constant temperature produces a relatively large error in pressure. Near the critical point where $\left[\frac{\partial P}{\partial \rho}\right]_T$ is close to zero, the pressure approximation is quite good, but here the densities are subject to larger deviations.

The coefficient of ρ^2 in (5) was divided by R T and evaluated at various temperatures. A plot of this curve along with values for the second virial coefficient from Friedman [1950] and those from Hall and Ibele [1950] as calculated from the data of Kamerlingh Onnes and Van Urk [1924] is shown in figure 1.

The first and second partial derivatives of pressure with respect to density at constant temperature given by (5) are zero at a point 0.86°K and 1.34 atm higher than the values in White, Friedman, and Johnston [1951]. An investigation of $\left[\frac{\partial^2 P}{\partial T^2}\right]_\rho$ near the critical point shows that (5) predicts a maximum and minimum of C_v with temperature as indicated by Rowlinson [1959]. However, because there are no calorimetric data over most of the area covered in this note, no estimate can be made of the accuracy of specific heats calculated using (5).

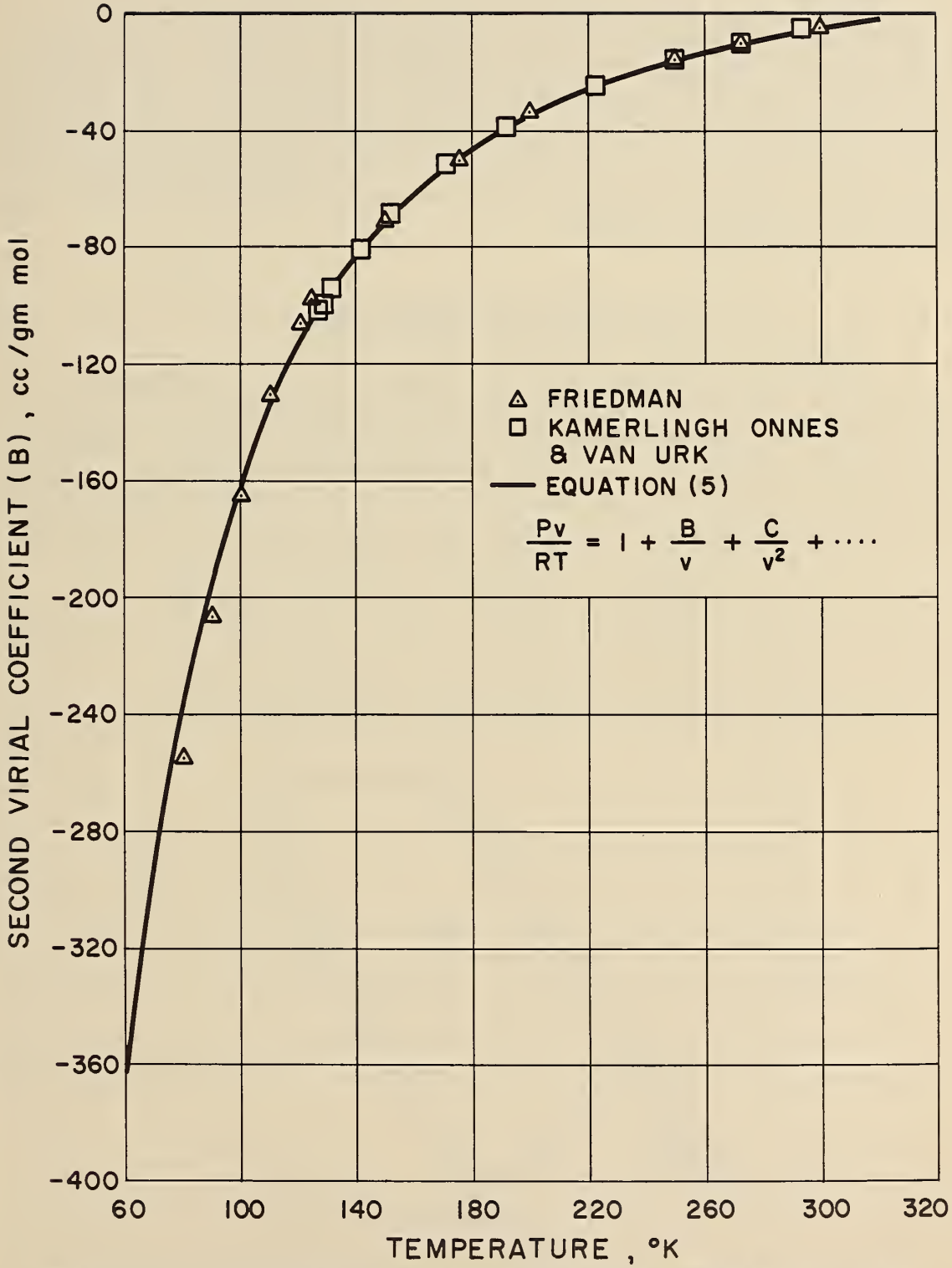

Figure 1 -- Comparison of experimental and calculated second virial coefficients.

The 8 to 10 figures given for the coefficients of the various equations do not imply 8 or 10 place accuracy. However, it has been found that the equations will give a better approximation to the experimental data if as many figures as possible are used in the coefficients. Because most of the work was semi-empirical, all the first and second derivatives of (1), (2), (3), and (5) were evaluated at closely spaced intervals to make sure that the slopes and curvatures do not exhibit any physically unrealistic behavior.

9. DERIVED PROPERTIES

Values for internal energy, enthalpy, entropy, and specific volume are given in the tables as functions of pressure and temperature. The calculations were made in the following sequence. First the properties along the two-phase boundary were established. The entropy and enthalpy of saturated vapor were calculated from (6) and (7). The upper limits of integration were established using (1) and (5). The entropy and enthalpy of vaporization, ΔS_{vap} and ΔH_{vap}, were computed using the Clapeyron relation, (8), where $\frac{dP}{dT}$ was evaluated from (1), and the volume difference was as predicted by (5).

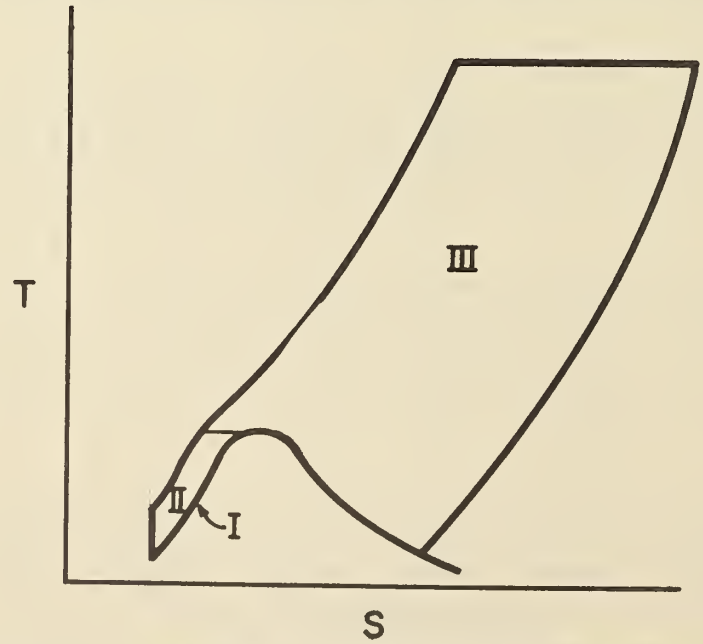

Figure 2 -- Regions of different calculational procedures

Then the quantities ΔS_{vap} and ΔH_{vap} were subtracted from the entropy and enthalpy, respectively, of saturated vapor to give values along the saturated liquid line, line I in figure 2. At a pressure of 760 mm Hg, Giauque [1933] gives a ΔH_{vap} of 5576.8 ± 4.2 j/gm - mol. The Clapeyron equation yields 5582.3 j/gm - mol at 77.364°K in this work, while Furukawa and McCoskey [1953] measured a value of 5592.3 j/gm - mol at 77.395°K.

$$S_{T,\rho} = S^{o}_{T_o} + \int_{T_o}^{T} C^{o}_{p} d(\ell n T) - R\ell n(RT\rho) + \int_{o}^{\rho} \left[\frac{R}{\rho} - \frac{1}{\rho^2} \left(\frac{\partial P}{\partial T} \right)_{\rho} \right]_{T} d\rho \quad (6)$$

where $S^{o}_{T_o}$ (3.014610292 j/gm °K) is the reference entropy of the ideal gas at T_o and 1 atm.

$$H_{T,\rho} = H^{o}_{T_o} + \int_{T_o}^{T} C^{o}_{p} dT + (Z-1)RT + \int_{o}^{\rho} \left[\frac{P}{\rho^2} - \frac{T}{\rho^2} \left(\frac{\partial P}{\partial T} \right)_{\rho} \right]_{T} d\rho \quad (7)$$

where $H^{o}_{T_o}$ (231.1885783 j/gm) is the reference enthalpy of the ideal gas at T_o.

$$\Delta S_{vap} = \frac{dP}{dT} \Delta V_{vap} \quad (8)$$

The reference temperature, T_o, is the temperature of the normal boiling point, 77.364°K. The values of $S^{o}_{T_o}$ and $H^{o}_{T_o}$ were selected on the basis of zero entropy and enthalpy for the saturated liquid at the triple point.

As a check on the accuracy of the method of calculation, using the values for ΔS_{vap} and ΔH_{vap} from (8) to establish a common reference, the entropy and enthalpy of saturated liquid were recalculated from information given by (1), (2), and (3). Then using the values of entropy and enthalpy along the saturated vapor line, ΔH_{vap} and ΔS_{vap} were found. In the temperature range covered by the data for C_{sat}, 65-117°K, the maximum difference in values for ΔS_{vap} computed by the different methods is 0.61%. Although the calculations are not entirely independent, this comparison would tend to disclose any inconsistencies between the relationships used for vapor pressure, ρ_{sat}, C_{sat}, and C_p^o and the model of the PVT surface.

In region II, figure 2, the isothermal changes in entropy and enthalpy from saturated liquid states were calculated from (9) and (10). Equations (6) and (7) were used in region III, figure 2, and the internal energy was computed from (11) over the entire surface.

$$\Delta S = \int_{\rho_{sat}}^{\rho} \left[-\frac{1}{\rho^2} \left(\frac{\partial P}{\partial T} \right)_{\rho} \right]_T d\rho \tag{9}$$

$$\Delta H = \frac{P}{\rho} - \left(\frac{P}{\rho} \right)_{sat} + \int_{\rho_{sat}}^{\rho} \left[\frac{P}{\rho^2} - \frac{T}{\rho^2} \left(\frac{\partial P}{\partial T} \right)_{\rho} \right]_T d\rho \tag{10}$$

$$U = H - PV \tag{11}$$

It was found that the calculated properties did not match at the mutual boundary of regions II and III. This was due possibly to a small error in the prediction of the specific volume of saturated vapor by (5). A small correction which was applied to the values for ΔS_{vap} given by (8), was found graphically. This correction δS_{vap}, given in table 1, when added to ΔS_{vap} decreases the previous values for the entropy of saturated liquid by a maximum of 1.12% at 122°K. The correction appears in tables 2 and 3.

Table 1

Corrections for entropy of vaporization

T (°K)	δS_v (j/gm °K)
105	0
106	0.000251
107	0.000585
108	0.001004
109	0.001506
110	0.002092
111	0.002761
112	0.003472
113	0.004351
114	0.005230
115	0.006234
116	0.007363
117	0.008786
118	0.010460
119	0.012384
120	0.014644
121	0.016443
122	0.016736
123	0.016736
124	0.016736
125	0.016736
126	0.016736

The accuracy of the tabulated properties varies over the surface. It is estimated that in general the tables are accurate within 5%, but the error may be considerably larger in some regions. The number of figures given in the tables is not justified on the basis of a possible 5% error, but is presented to maintain internal consistency.

In Supplement A of this Technical Note, Strobridge [1962], the same tables are presented in the British system of units (pressure in pounds per square inch, temperature in degrees Rankine, energy in British Thermal Units, mass in pounds, and volume in cubic feet).

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TABLE 2

THERMODYNAMIC PROPERTIES OF NITROGEN AT SATURATION

TEMPERATURE (K)	PRESSURE (ATM)	ENTROPY (J/GM-K)			ENTHALPY (J/GM)			SPECIFIC VOLUME (CC/GM)	
		LIQUID	VAPOR	ΔS_{vap}	LIQUID	VAPOR	ΔH_{vap}	LIQUID	VAPOR
63.150	.123	.0000	3.4214	3.4214	.000	216.061	216.061	1.1515	1486.57
64.000	.144	.0274	3.3890	3.3616	1.744	216.885	215.141	1.1560	1289.79
65.000	.172	.0592	3.3522	3.2930	3.802	217.846	214.045	1.1615	1097.25
66.000	.203	.0907	3.3169	3.2263	5.864	218.797	212.933	1.1670	938.648
67.000	.240	.1217	3.2830	3.1613	7.931	219.737	211.807	1.1727	807.194
68.000	.281	.1523	3.2503	3.0980	10.000	220.666	210.666	1.1784	697.613
69.000	.328	.1824	3.2188	3.0364	12.072	221.582	209.511	1.1843	605.762
70.000	.380	.2122	3.1885	2.9763	14.144	222.486	208.341	1.1903	528.365
71.000	.439	.2415	3.1592	2.9177	16.218	223.375	207.157	1.1965	462.819
72.000	.505	.2704	3.1309	2.8605	18.291	224.249	205.959	1.2028	407.042
73.000	.579	.2988	3.1036	2.8047	20.364	225.109	204.745	1.2091	359.360
74.000	.660	.3269	3.0771	2.7502	22.435	225.951	203.516	1.2157	318.419
75.000	.750	.3545	3.0515	2.6969	24.506	226.777	202.271	1.2223	283.117
76.000	.849	.3818	3.0266	2.6449	26.576	227.585	201.009	1.2291	252.555
77.000	.958	.4086	3.0025	2.5939	28.644	228.374	199.730	1.2360	225.994
77.364	1.000	.4183	2.9939	2.5756	29.397	228.657	199.260	1.2386	217.194
78.000	1.077	.4351	2.9791	2.5440	30.712	229.144	198.432	1.2431	202.825
79.000	1.207	.4612	2.9564	2.4951	32.779	229.893	197.115	1.2503	182.544
80.000	1.349	.4870	2.9342	2.4472	34.845	230.621	195.776	1.2577	164.729
81.000	1.503	.5124	2.9126	2.4002	36.912	231.328	194.416	1.2652	149.030
82.000	1.670	.5376	2.8916	2.3540	38.980	232.011	193.031	1.2729	135.153
83.000	1.850	.5624	2.8711	2.3087	41.050	232.671	191.621	1.2807	122.848
84.000	2.045	.5869	2.8510	2.2641	43.122	233.307	190.184	1.2887	111.907
85.000	2.254	.6111	2.8313	2.2202	45.198	233.917	188.718	1.2970	102.151
86.000	2.480	.6351	2.8121	2.1770	47.279	234.500	187.221	1.3054	93.429
87.000	2.721	.6589	2.7932	2.1344	49.366	235.057	185.690	1.3140	85.611
88.000	2.980	.6824	2.7747	2.0923	51.461	235.585	184.124	1.3228	78.586
89.000	3.256	.7058	2.7565	2.0508	53.564	236.084	182.520	1.3318	72.258
90.000	3.551	.7289	2.7387	2.0097	55.677	236.553	180.876	1.3411	66.546
91.000	3.864	.7519	2.7210	1.9691	57.802	236.991	179.189	1.3506	61.378
92.000	4.198	.7748	2.7037	1.9289	59.940	237.396	177.456	1.3604	56.693
93.000	4.553	.7975	2.6865	1.8890	62.092	237.767	175.675	1.3705	52.436
94.000	4.929	.8202	2.6696	1.8494	64.261	238.104	173.843	1.3808	48.560
95.000	5.327	.8427	2.6528	1.8101	66.449	238.405	171.957	1.3915	45.026
96.000	5.748	.8652	2.6362	1.7710	68.656	238.669	170.013	1.4024	41.796
97.000	6.192	.8876	2.6197	1.7321	70.884	238.893	168.009	1.4138	38.839
98.000	6.662	.9100	2.6033	1.6933	73.135	239.077	165.942	1.4255	36.127
99.000	7.156	.9324	2.5870	1.6546	75.411	239.219	163.808	1.4376	33.636
100.000	7.676	.9548	2.5708	1.6160	77.714	239.316	161.603	1.4501	31.344
101.000	8.223	.9772	2.5546	1.5775	80.044	239.368	159.324	1.4631	29.231
102.000	8.798	.9996	2.5385	1.5389	82.405	239.372	156.967	1.4765	27.281
103.000	9.401	1.0221	2.5223	1.5003	84.797	239.325	154.528	1.4906	25.478
104.000	10.032	1.0446	2.5061	1.4616	87.223	239.226	152.003	1.5051	23.808
105.000	10.694	1.0671	2.4899	1.4227	89.684	239.070	149.386	1.5204	22.259
106.000	11.387	1.0896	2.4735	1.3839	92.157	238.855	146.698	1.5363	20.821
107.000	12.111	1.1120	2.4570	1.3450	94.660	238.578	143.918	1.5529	19.482
108.000	12.867	1.1345	2.4404	1.3059	97.195	238.234	141.039	1.5704	18.235
109.000	13.657	1.1570	2.4236	1.2665	99.766	237.819	138.053	1.5889	17.071
110.000	14.480	1.1796	2.4065	1.2268	102.375	237.327	134.953	1.6083	15.983
111.000	15.339	1.2024	2.3891	1.1867	105.025	236.753	131.728	1.6289	14.964
112.000	16.233	1.2253	2.3714	1.1461	107.727	236.090	128.363	1.6507	14.009
113.000	17.164	1.2483	2.3533	1.1049	110.470	235.328	124.858	1.6741	13.111
114.000	18.133	1.2717	2.3346	1.0630	113.281	234.459	121.178	1.6991	12.265
115.000	19.140	1.2953	2.3154	1.0202	116.153	233.471	117.318	1.7260	11.467
116.000	20.188	1.3192	2.2955	.9763	119.096	232.348	113.252	1.7552	10.712
117.000	21.276	1.3434	2.2748	.9314	122.104	231.074	108.969	1.7870	9.995
118.000	22.407	1.3681	2.2531	.8850	125.199	229.624	104.425	1.8221	9.314
119.000	23.581	1.3934	2.2301	.8367	128.401	227.970	99.569	1.8611	8.662
120.000	24.800	1.4194	2.2056	.7862	131.733	226.073	94.340	1.9049	8.036
121.000	26.065	1.4473	2.1791	.7318	135.330	223.877	88.547	1.9551	7.432
122.000	27.378	1.4787	2.1501	.6715	139.385	221.303	81.918	2.0136	6.843
123.000	28.741	1.5129	2.1177	.6047	143.846	218.228	74.382	2.0839	6.263
124.000	30.156	1.5510	2.0801	.5291	148.834	214.443	65.609	2.1718	5.680
125.000	31.625	1.5951	2.0342	.4390	154.646	209.527	54.881	2.2890	5.074
126.000	33.150	1.6509	1.9707	.3198	161.990	202.287	40.296	2.4645	4.390

.10 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	3540.13	276.367	240.497	4.1616
					122.00	3569.49	277.407	241.239	4.1702
					123.00	3598.83	278.447	241.982	4.1787
					124.00	3628.19	279.487	242.724	4.1871
65.00	1892.00	218.060	198.889	3.5145	125.00	3657.54	280.527	243.467	4.1955
66.00	1921.55	219.102	199.632	3.5304	126.00	3686.89	281.566	244.209	4.2037
67.00	1951.10	220.144	200.375	3.5461	127.00	3716.24	282.606	244.951	4.2120
68.00	1980.64	221.187	201.118	3.5616	128.00	3745.59	283.646	245.694	4.2201
69.00	2010.18	222.229	201.861	3.5768	129.00	3774.93	284.685	246.436	4.2282
70.00	2039.71	223.271	202.604	3.5918	130.00	3804.28	285.725	247.178	4.2362
71.00	2069.23	224.314	203.347	3.6066	131.00	3833.62	286.764	247.920	4.2442
72.00	2098.75	225.356	204.090	3.6211	132.00	3862.97	287.804	248.663	4.2521
73.00	2128.26	226.398	204.834	3.6355	133.00	3892.31	288.844	249.405	4.2599
74.00	2157.76	227.441	205.577	3.6497	134.00	3921.65	289.883	250.147	4.2677
75.00	2187.26	228.483	206.321	3.6637	135.00	3951.00	290.923	250.889	4.2755
76.00	2216.75	229.525	207.064	3.6775	136.00	3980.33	291.962	251.631	4.2831
77.00	2246.24	230.567	207.807	3.6911	137.00	4009.67	293.002	252.374	4.2907
78.00	2275.73	231.610	208.551	3.7046	138.00	4039.01	294.041	253.116	4.2983
79.00	2305.20	232.652	209.294	3.7178	139.00	4068.34	295.080	253.858	4.3058
80.00	2334.68	233.694	210.038	3.7310	140.00	4097.68	296.120	254.600	4.3133
81.00	2364.14	234.736	210.781	3.7439	141.00	4127.01	297.159	255.342	4.3207
82.00	2393.61	235.778	211.525	3.7567	142.00	4156.35	298.199	256.084	4.3280
83.00	2423.06	236.820	212.268	3.7693	143.00	4185.68	299.238	256.827	4.3353
84.00	2452.52	237.862	213.011	3.7818	144.00	4215.01	300.277	257.569	4.3425
85.00	2481.97	238.903	213.755	3.7941	145.00	4244.35	301.317	258.311	4.3497
86.00	2511.41	239.945	214.498	3.8063	146.00	4273.68	302.356	259.053	4.3569
87.00	2540.85	240.987	215.241	3.8183	147.00	4303.01	303.395	259.795	4.3640
88.00	2570.29	242.028	215.985	3.8302	148.00	4332.34	304.434	260.537	4.3710
89.00	2599.72	243.070	216.728	3.8420	149.00	4361.67	305.474	261.279	4.3780
90.00	2629.15	244.111	217.471	3.8536	150.00	4391.00	306.513	262.021	4.3850
91.00	2658.58	245.152	218.214	3.8652	151.00	4420.32	307.552	262.763	4.3919
92.00	2688.01	246.194	218.957	3.8765	152.00	4449.66	308.591	263.505	4.3987
93.00	2717.42	247.235	219.701	3.8878	153.00	4478.98	309.630	264.247	4.4055
94.00	2746.83	248.276	220.444	3.8989	154.00	4508.30	310.670	264.989	4.4123
95.00	2776.25	249.317	221.187	3.9099	155.00	4537.63	311.709	265.731	4.4190
96.00	2805.66	250.358	221.930	3.9208	156.00	4566.95	312.748	266.473	4.4257
97.00	2835.06	251.399	222.673	3.9316	157.00	4596.28	313.787	267.215	4.4324
98.00	2864.47	252.440	223.416	3.9423	158.00	4625.61	314.826	267.957	4.4390
99.00	2893.87	253.481	224.159	3.9529	159.00	4654.92	315.865	268.699	4.4455
100.00	2923.27	254.522	224.902	3.9633	160.00	4684.25	316.904	269.441	4.4520
101.00	2952.67	255.562	225.645	3.9737	161.00	4713.57	317.943	270.183	4.4585
102.00	2982.05	256.603	226.387	3.9839	162.00	4742.89	318.982	270.925	4.4649
103.00	3011.44	257.644	227.130	3.9941	163.00	4772.22	320.021	271.667	4.4713
104.00	3040.83	258.684	227.873	4.0042	164.00	4801.54	321.060	272.409	4.4777
105.00	3070.22	259.725	228.616	4.0141	165.00	4830.86	322.099	273.151	4.4840
106.00	3099.61	260.765	229.359	4.0240	166.00	4860.18	323.138	273.893	4.4903
107.00	3128.98	261.806	230.101	4.0337	167.00	4889.49	324.177	274.635	4.4965
108.00	3158.36	262.846	230.844	4.0434	168.00	4918.81	325.216	275.377	4.5027
109.00	3187.74	263.886	231.587	4.0530	169.00	4948.13	326.255	276.119	4.5089
110.00	3217.11	264.927	232.329	4.0625	170.00	4977.44	327.294	276.861	4.5150
111.00	3246.49	265.967	233.072	4.0719	171.00	5006.76	328.333	277.602	4.5211
112.00	3275.86	267.007	233.815	4.0813	172.00	5036.08	329.372	278.344	4.5272
113.00	3305.23	268.047	234.557	4.0905	173.00	5065.39	330.411	279.086	4.5332
114.00	3334.60	269.087	235.300	4.0997	174.00	5094.71	331.450	279.828	4.5392
115.00	3363.96	270.128	236.042	4.1087	175.00	5124.03	332.489	280.570	4.5451
116.00	3393.33	271.168	236.785	4.1177	176.00	5153.34	333.528	281.312	4.5511
117.00	3422.69	272.208	237.527	4.1267	177.00	5182.66	334.567	282.054	4.5569
118.00	3452.06	273.248	238.270	4.1355	178.00	5211.97	335.606	282.796	4.5628
119.00	3481.42	274.288	239.012	4.1443	179.00	5241.29	336.645	283.538	4.5686
120.00	3510.77	275.327	239.755	4.1530	180.00	5270.61	337.684	284.279	4.5744

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	5299.91	338.723	285.021	4.5802	241.00	7058.30	401.046	329.528	4.8776
182.00	5329.23	339.761	285.763	4.5859	242.00	7087.60	402.085	330.270	4.8819
183.00	5358.55	340.800	286.505	4.5916	243.00	7116.90	403.123	331.011	4.8861
184.00	5387.85	341.839	287.247	4.5972	244.00	7146.21	404.162	331.753	4.8904
185.00	5417.17	342.878	287.989	4.6029	245.00	7175.50	405.200	332.495	4.8946
186.00	5446.48	343.917	288.731	4.6085	246.00	7204.80	406.239	333.237	4.8989
187.00	5475.79	344.956	289.472	4.6140	247.00	7234.10	407.278	333.978	4.9031
188.00	5505.11	345.995	290.214	4.6196	248.00	7263.40	408.316	334.720	4.9073
189.00	5534.41	347.033	290.956	4.6251	249.00	7292.70	409.355	335.462	4.9115
190.00	5563.72	348.072	291.698	4.6306	250.00	7322.00	410.394	336.204	4.9156
191.00	5593.03	349.111	292.440	4.6360	251.00	7351.30	411.432	336.945	4.9198
192.00	5622.34	350.150	293.181	4.6415	252.00	7380.60	412.471	337.687	4.9239
193.00	5651.65	351.189	293.923	4.6468	253.00	7409.90	413.510	338.429	4.9280
194.00	5680.96	352.227	294.665	4.6522	254.00	7439.20	414.548	339.171	4.9321
195.00	5710.27	353.266	295.407	4.6576	255.00	7468.50	415.587	339.913	4.9362
196.00	5739.58	354.305	296.149	4.6629	256.00	7497.80	416.626	340.654	4.9403
197.00	5768.89	355.344	296.891	4.6682	257.00	7527.10	417.664	341.396	4.9443
198.00	5798.20	356.382	297.632	4.6734	258.00	7556.40	418.703	342.138	4.9483
199.00	5827.51	357.421	298.374	4.6787	259.00	7585.70	419.742	342.880	4.9524
200.00	5856.82	358.460	299.116	4.6839	260.00	7615.00	420.780	343.621	4.9564
201.00	5886.12	359.499	299.858	4.6890	261.00	7644.30	421.819	344.363	4.9604
202.00	5915.43	360.538	300.599	4.6942	262.00	7673.60	422.858	345.105	4.9643
203.00	5944.75	361.576	301.341	4.6993	263.00	7702.91	423.896	345.847	4.9683
204.00	5974.05	362.615	302.083	4.7044	264.00	7732.20	424.935	346.589	4.9722
205.00	6003.35	363.654	302.825	4.7095	265.00	7761.50	425.974	347.331	4.9762
206.00	6032.66	364.692	303.567	4.7146	266.00	7790.80	427.013	348.072	4.9801
207.00	6061.97	365.731	304.308	4.7196	267.00	7820.10	428.051	348.814	4.9840
208.00	6091.28	366.770	305.050	4.7246	268.00	7849.40	429.090	349.556	4.9878
209.00	6120.58	367.809	305.792	4.7296	269.00	7878.69	430.129	350.298	4.9917
210.00	6149.89	368.847	306.534	4.7345	270.00	7907.99	431.167	351.040	4.9956
211.00	6179.19	369.886	307.275	4.7395	271.00	7937.29	432.206	351.782	4.9994
212.00	6208.50	370.925	308.017	4.7444	272.00	7966.59	433.245	352.524	5.0032
213.00	6237.81	371.963	308.759	4.7493	273.00	7995.89	434.284	353.265	5.0070
214.00	6267.12	373.002	309.501	4.7541	274.00	8025.19	435.322	354.007	5.0108
215.00	6296.42	374.041	310.242	4.7590	275.00	8054.48	436.361	354.749	5.0146
216.00	6325.73	375.079	310.984	4.7638	276.00	8083.78	437.400	355.491	5.0184
217.00	6355.03	376.118	311.726	4.7686	277.00	8113.09	438.439	356.233	5.0222
218.00	6384.34	377.157	312.468	4.7734	278.00	8142.38	439.478	356.975	5.0259
219.00	6413.63	378.196	313.209	4.7781	279.00	8171.68	440.516	357.717	5.0296
220.00	6442.94	379.234	313.951	4.7829	280.00	8200.97	441.555	358.459	5.0333
221.00	6472.24	380.273	314.693	4.7876	281.00	8230.27	442.594	359.201	5.0371
222.00	6501.55	381.312	315.435	4.7923	282.00	8259.57	443.633	359.943	5.0407
223.00	6530.85	382.350	316.176	4.7969	283.00	8288.87	444.672	360.685	5.0444
224.00	6560.15	383.389	316.918	4.8016	284.00	8318.17	445.710	361.427	5.0481
225.00	6589.46	384.428	317.660	4.8062	285.00	8347.46	446.749	362.169	5.0517
226.00	6618.76	385.466	318.402	4.8108	286.00	8376.77	447.788	362.911	5.0554
227.00	6648.07	386.505	319.143	4.8154	287.00	8406.06	448.827	363.653	5.0590
228.00	6677.37	387.544	319.885	4.8200	288.00	8435.35	449.866	364.395	5.0626
229.00	6706.67	388.582	320.627	4.8245	289.00	8464.65	450.905	365.137	5.0662
230.00	6735.97	389.621	321.369	4.8290	290.00	8493.95	451.944	365.879	5.0698
231.00	6765.28	390.659	322.110	4.8335	291.00	8523.25	452.983	366.621	5.0734
232.00	6794.58	391.698	322.852	4.8380	292.00	8552.54	454.022	367.363	5.0769
233.00	6823.88	392.737	323.594	4.8425	293.00	8581.85	455.061	368.105	5.0805
234.00	6853.18	393.775	324.336	4.8469	294.00	8611.14	456.100	368.847	5.0840
235.00	6882.49	394.814	325.077	4.8514	295.00	8640.43	457.139	369.590	5.0876
236.00	6911.79	395.853	325.819	4.8558	296.00	8669.73	458.178	370.332	5.0911
237.00	6941.10	396.891	326.561	4.8602	297.00	8699.03	459.217	371.074	5.0946
238.00	6970.39	397.930	327.303	4.8645	298.00	8728.33	460.256	371.816	5.0981
239.00	6999.69	398.969	328.044	4.8689	299.00	8757.62	461.295	372.558	5.1016
240.00	7029.00	400.007	328.786	4.8732	300.00	8786.92	462.334	373.301	5.1050

12 ATMOSPHERE ISOBAR

	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
*	63.150	1.1515	.0000	-.0144	.0000
*	63.150	1486.57	216.061	197.475	3.4214
	64.00	1506.99	216.948	198.106	3.4353
	65.00	1530.99	217.991	198.848	3.4515
	66.00	1555.00	219.034	199.591	3.4674
	67.00	1578.99	220.077	200.334	3.4831
	68.00	1602.99	221.120	201.078	3.4986
	69.00	1626.96	222.163	201.821	3.5138
	70.00	1650.94	223.207	202.565	3.5288
	71.00	1674.91	224.250	203.309	3.5436
	72.00	1698.87	225.294	204.052	3.5582
	73.00	1722.83	226.337	204.796	3.5726
	74.00	1746.78	227.380	205.540	3.5868
	75.00	1770.74	228.424	206.284	3.6008
	76.00	1794.68	229.467	207.028	3.6146
	77.00	1818.61	230.510	207.772	3.6283
	78.00	1842.54	231.553	208.516	3.6417
	79.00	1866.46	232.596	209.260	3.6550
	80.00	1890.38	233.639	210.004	3.6681
	81.00	1914.29	234.682	210.748	3.6811
	82.00	1938.20	235.725	211.492	3.6939
	83.00	1962.11	236.768	212.235	3.7065
	84.00	1986.01	237.811	212.979	3.7190
	85.00	2009.90	238.853	213.723	3.7313
	86.00	2033.80	239.896	214.467	3.7435
	87.00	2057.68	240.938	215.211	3.7556
	88.00	2081.57	241.981	215.954	3.7675
	89.00	2105.45	243.023	216.698	3.7793
	90.00	2129.32	244.065	217.442	3.7909
	91.00	2153.20	245.107	218.185	3.8024
	92.00	2177.06	246.149	218.929	3.8138
	93.00	2200.94	247.191	219.673	3.8251
	94.00	2224.79	248.233	220.416	3.8362
	95.00	2248.65	249.275	221.160	3.8473
	96.00	2272.51	250.317	221.903	3.8582
	97.00	2296.37	251.358	222.646	3.8690
	98.00	2320.22	252.400	223.390	3.8796
	99.00	2344.06	253.441	224.133	3.8902
	100.00	2367.90	254.483	224.876	3.9007
	101.00	2391.74	255.524	225.620	3.9111
	102.00	2415.58	256.565	226.363	3.9213
	103.00	2439.43	257.607	227.106	3.9315
	104.00	2463.25	258.648	227.849	3.9415
	105.00	2487.09	259.689	228.592	3.9515
	106.00	2510.92	260.730	229.335	3.9614
	107.00	2534.74	261.771	230.078	3.9711
	108.00	2558.58	262.812	230.821	3.9808
	109.00	2582.39	263.853	231.564	3.9904
	110.00	2606.22	264.893	232.307	3.9999
	111.00	2630.04	265.934	233.050	4.0093
	112.00	2653.85	266.975	233.793	4.0187
	113.00	2677.67	268.015	234.536	4.0279
	114.00	2701.48	269.056	235.279	4.0371
	115.00	2725.30	270.097	236.022	4.0462
	116.00	2749.11	271.137	236.765	4.0552
	117.00	2772.92	272.178	237.507	4.0641
	118.00	2796.72	273.218	238.250	4.0730
	119.00	2820.53	274.258	238.993	4.0817
	120.00	2844.33	275.299	239.735	4.0905
	121.00	2868.14	276.339	240.478	4.0991
	122.00	2891.94	277.379	241.221	4.1076
	123.00	2915.74	278.419	241.963	4.1161
	124.00	2939.54	279.460	242.706	4.1246
	125.00	2963.34	280.500	243.449	4.1329
	126.00	2987.13	281.540	244.191	4.1412
	127.00	3010.93	282.580	244.934	4.1494
	128.00	3034.72	283.620	245.676	4.1576
	129.00	3058.52	284.660	246.419	4.1657
	130.00	3082.31	285.700	247.161	4.1737
	131.00	3106.10	286.740	247.904	4.1817
	132.00	3129.89	287.780	248.646	4.1896
	133.00	3153.68	288.819	249.389	4.1974
	134.00	3177.47	289.859	250.131	4.2052
	135.00	3201.25	290.899	250.873	4.2130
	136.00	3225.04	291.939	251.616	4.2206
	137.00	3248.82	292.979	252.358	4.2282
	138.00	3272.61	294.018	253.100	4.2358
	139.00	3296.39	295.058	253.843	4.2433
	140.00	3320.17	296.098	254.585	4.2508
	141.00	3343.95	297.137	255.327	4.2582
	142.00	3367.74	298.177	256.070	4.2655
	143.00	3391.52	299.217	256.812	4.2728
	144.00	3415.29	300.256	257.554	4.2801
	145.00	3439.07	301.296	258.297	4.2872
	146.00	3462.86	302.335	259.039	4.2944
	147.00	3486.63	303.375	259.781	4.3015
	148.00	3510.40	304.414	260.523	4.3085
	149.00	3534.18	305.454	261.265	4.3155
	150.00	3557.95	306.493	262.008	4.3225
	151.00	3581.73	307.533	262.750	4.3294
	152.00	3605.50	308.572	263.492	4.3363
	153.00	3629.27	309.612	264.234	4.3431
	154.00	3653.05	310.651	264.976	4.3498
	155.00	3676.82	311.690	265.718	4.3566
	156.00	3700.59	312.730	266.461	4.3633
	157.00	3724.36	313.769	267.203	4.3699
	158.00	3748.13	314.808	267.945	4.3765
	159.00	3771.90	315.848	268.687	4.3830
	160.00	3795.67	316.887	269.429	4.3896
	161.00	3819.44	317.926	270.171	4.3960
	162.00	3843.20	318.965	270.913	4.4025
	163.00	3866.97	320.005	271.655	4.4089
	164.00	3890.74	321.044	272.397	4.4152
	165.00	3914.51	322.083	273.139	4.4215
	166.00	3938.27	323.122	273.881	4.4278
	167.00	3962.04	324.161	274.623	4.4341
	168.00	3985.80	325.201	275.366	4.4403
	169.00	4009.57	326.240	276.108	4.4464
	170.00	4033.34	327.279	276.850	4.4526
	171.00	4057.09	328.318	277.592	4.4587
	172.00	4080.86	329.357	278.334	4.4647
	173.00	4104.63	330.396	279.076	4.4707
	174.00	4128.38	331.435	279.818	4.4767
	175.00	4152.15	332.474	280.560	4.4827
	176.00	4175.91	333.514	281.302	4.4886
	177.00	4199.67	334.553	282.044	4.4945
	178.00	4223.43	335.592	282.785	4.5003
	179.00	4247.20	336.631	283.527	4.5062
	180.00	4270.96	337.670	284.269	4.5120

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	4294.72	338.709	285.011	4.5177	241.00	5719.88	401.038	329.522	4.8151
182.00	4318.48	339.748	285.753	4.5234	242.00	5743.62	402.077	330.263	4.8194
183.00	4342.23	340.787	286.495	4.5291	243.00	5767.37	403.115	331.005	4.8237
184.00	4365.99	341.826	287.237	4.5348	244.00	5791.12	404.154	331.747	4.8280
185.00	4389.75	342.865	287.979	4.5404	245.00	5814.87	405.193	332.489	4.8322
186.00	4413.51	343.904	288.721	4.5460	246.00	5838.61	406.232	333.230	4.8365
187.00	4437.26	344.943	289.463	4.5516	247.00	5862.36	407.270	333.972	4.8407
188.00	4461.02	345.982	290.205	4.5571	248.00	5886.11	408.309	334.714	4.8449
189.00	4484.78	347.021	290.947	4.5627	249.00	5909.86	409.348	335.456	4.8491
190.00	4508.54	348.060	291.689	4.5681	250.00	5933.60	410.386	336.198	4.8532
191.00	4532.29	349.099	292.431	4.5736	251.00	5957.35	411.425	336.939	4.8574
192.00	4556.06	350.137	293.172	4.5790	252.00	5981.10	412.464	337.681	4.8615
193.00	4579.81	351.176	293.914	4.5844	253.00	6004.84	413.503	338.423	4.8656
194.00	4603.56	352.215	294.656	4.5898	254.00	6028.59	414.541	339.165	4.8697
195.00	4627.32	353.254	295.398	4.5951	255.00	6052.33	415.580	339.907	4.8738
196.00	4651.07	354.293	296.140	4.6004	256.00	6076.09	416.619	340.649	4.8778
197.00	4674.84	355.332	296.882	4.6057	257.00	6099.83	417.657	341.390	4.8819
198.00	4698.59	356.371	297.624	4.6110	258.00	6123.57	418.696	342.132	4.8859
199.00	4722.35	357.410	298.366	4.6162	259.00	6147.32	419.735	342.874	4.8900
200.00	4746.10	358.449	299.107	4.6214	260.00	6171.06	420.774	343.616	4.8940
201.00	4769.85	359.487	299.849	4.6266	261.00	6194.82	421.812	344.358	4.8979
202.00	4793.60	360.526	300.591	4.6318	262.00	6218.56	422.851	345.100	4.9019
203.00	4817.36	361.565	301.333	4.6369	263.00	6242.30	423.890	345.841	4.9059
204.00	4841.11	362.604	302.075	4.6420	264.00	6266.05	424.929	346.583	4.9098
205.00	4864.87	363.643	302.817	4.6471	265.00	6289.79	425.967	347.325	4.9137
206.00	4888.62	364.682	303.558	4.6521	266.00	6313.54	427.006	348.067	4.9177
207.00	4912.37	365.720	304.300	4.6572	267.00	6337.28	428.045	348.809	4.9215
208.00	4936.12	366.759	305.042	4.6622	268.00	6361.03	429.084	349.551	4.9254
209.00	4959.88	367.798	305.784	4.6671	269.00	6384.77	430.122	350.293	4.9293
210.00	4983.64	368.837	306.526	4.6721	270.00	6408.52	431.161	351.035	4.9332
211.00	5007.38	369.876	307.268	4.6770	271.00	6432.26	432.200	351.776	4.9370
212.00	5031.13	370.915	308.009	4.6820	272.00	6456.01	433.239	352.518	4.9408
213.00	5054.89	371.953	308.751	4.6868	273.00	6479.75	434.278	353.260	4.9446
214.00	5078.64	372.992	309.493	4.6917	274.00	6503.50	435.316	354.002	4.9484
215.00	5102.39	374.031	310.235	4.6965	275.00	6527.24	436.355	354.744	4.9522
216.00	5126.14	375.070	310.977	4.7014	276.00	6550.99	437.394	355.486	4.9560
217.00	5149.89	376.108	311.719	4.7062	277.00	6574.73	438.433	356.228	4.9597
218.00	5173.64	377.147	312.460	4.7109	278.00	6598.48	439.472	356.970	4.9635
219.00	5197.39	378.186	313.202	4.7157	279.00	6622.22	440.511	357.712	4.9672
220.00	5221.15	379.225	313.944	4.7204	280.00	6645.96	441.549	358.454	4.9709
221.00	5244.90	380.263	314.686	4.7251	281.00	6669.71	442.588	359.196	4.9746
222.00	5268.65	381.302	315.428	4.7298	282.00	6693.45	443.627	359.938	4.9783
223.00	5292.40	382.341	316.169	4.7345	283.00	6717.20	444.666	360.680	4.9820
224.00	5316.15	383.380	316.911	4.7391	284.00	6740.95	445.705	361.422	4.9857
225.00	5339.90	384.418	317.653	4.7438	285.00	6764.68	446.744	362.164	4.9893
226.00	5363.65	385.457	318.395	4.7484	286.00	6788.43	447.783	362.906	4.9930
227.00	5387.40	386.496	319.136	4.7530	287.00	6812.17	448.822	363.648	4.9966
228.00	5411.15	387.535	319.878	4.7575	288.00	6835.92	449.861	364.390	5.0002
229.00	5434.90	388.573	320.620	4.7621	289.00	6859.66	450.900	365.132	5.0038
230.00	5458.64	389.612	321.362	4.7666	290.00	6883.40	451.939	365.874	5.0074
231.00	5482.39	390.651	322.104	4.7711	291.00	6907.15	452.978	366.616	5.0110
232.00	5506.14	391.690	322.845	4.7756	292.00	6930.90	454.017	367.359	5.0145
233.00	5529.89	392.728	323.587	4.7801	293.00	6954.63	455.056	368.101	5.0181
234.00	5553.64	393.767	324.329	4.7845	294.00	6978.38	456.095	368.843	5.0216
235.00	5577.39	394.806	325.071	4.7889	295.00	7002.13	457.134	369.585	5.0252
236.00	5601.14	395.844	325.813	4.7934	296.00	7025.86	458.173	370.327	5.0287
237.00	5624.89	396.883	326.554	4.7977	297.00	7049.61	459.212	371.069	5.0322
238.00	5648.63	397.922	327.296	4.8021	298.00	7073.35	460.251	371.812	5.0357
239.00	5672.38	398.961	328.038	4.8065	299.00	7097.09	461.290	372.554	5.0391
240.00	5696.13	399.999	328.780	4.8108	300.00	7120.84	462.329	373.296	5.0426

.20 ATMOSPHERE ISOBAR

	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1560	1.7488	1.7254	.0274
	65.00	1.1614	3.8041	3.7806	.0592
*	65.899	1.1664	5.6553	5.6317	.0875
*	65.899	953.377	218.702	199.381	3.3205
	66.00	954.887	218.808	199.457	3.3221
	67.00	969.796	219.854	200.201	3.3378
	68.00	984.699	220.901	200.946	3.3533
	69.00	999.594	221.948	201.691	3.3686
	70.00	1014.48	222.995	202.436	3.3837
	71.00	1029.36	224.041	203.181	3.3985
	72.00	1044.25	225.088	203.927	3.4131
	73.00	1059.11	226.135	204.672	3.4276
	74.00	1073.97	227.182	205.418	3.4418
	75.00	1088.84	228.229	206.164	3.4559
	76.00	1103.68	229.275	206.909	3.4697
	77.00	1118.53	230.322	207.655	3.4834
	78.00	1133.37	231.368	208.401	3.4969
	79.00	1148.20	232.414	209.146	3.5102
	80.00	1163.03	233.461	209.892	3.5234
	81.00	1177.86	234.507	210.637	3.5364
	82.00	1192.68	235.553	211.383	3.5492
	83.00	1207.49	236.598	212.129	3.5619
	84.00	1222.31	237.644	212.874	3.5744
	85.00	1237.11	238.689	213.619	3.5868
	86.00	1251.91	239.735	214.365	3.5990
	87.00	1266.70	240.780	215.110	3.6111
	88.00	1281.50	241.825	215.855	3.6231
	89.00	1296.29	242.870	216.601	3.6349
	90.00	1311.07	243.915	217.346	3.6465
	91.00	1325.85	244.959	218.091	3.6581
	92.00	1340.63	246.004	218.836	3.6695
	93.00	1355.41	247.048	219.581	3.6808
	94.00	1370.18	248.092	220.326	3.6920
	95.00	1384.94	249.136	221.071	3.7030
	96.00	1399.71	250.180	221.815	3.7139
	97.00	1414.47	251.224	222.560	3.7248
	98.00	1429.24	252.268	223.305	3.7355
	99.00	1443.99	253.312	224.049	3.7461
	100.00	1458.75	254.355	224.794	3.7565
	101.00	1473.49	255.398	225.538	3.7669
	102.00	1488.24	256.442	226.283	3.7772
	103.00	1502.99	257.485	227.027	3.7874
	104.00	1517.73	258.528	227.771	3.7975
	105.00	1532.47	259.571	228.515	3.8074
	106.00	1547.21	260.614	229.260	3.8173
	107.00	1561.94	261.656	230.004	3.8271
	108.00	1576.68	262.699	230.748	3.8368
	109.00	1591.41	263.742	231.492	3.8464
	110.00	1606.14	264.784	232.236	3.8559
	111.00	1620.87	265.827	232.980	3.8654
	112.00	1635.60	266.869	233.724	3.8747
	113.00	1650.33	267.911	234.467	3.8840
	114.00	1665.04	268.953	235.211	3.8932
	115.00	1679.76	269.995	235.955	3.9023
	116.00	1694.48	271.037	236.699	3.9113
	117.00	1709.20	272.079	237.442	3.9202
	118.00	1723.92	273.121	238.186	3.9291
	119.00	1738.63	274.163	238.929	3.9379
	120.00	1753.35	275.204	239.673	3.9466
	121.00	1768.06	276.246	240.416	3.9553
	122.00	1782.77	277.287	241.160	3.9638
	123.00	1797.48	278.329	241.903	3.9723
	124.00	1812.19	279.370	242.646	3.9808
	125.00	1826.89	280.412	243.390	3.9891
	126.00	1841.60	281.453	244.133	3.9974
	127.00	1856.30	282.494	244.876	4.0057
	128.00	1871.00	283.535	245.620	4.0138
	129.00	1885.71	284.577	246.363	4.0219
	130.00	1900.41	285.618	247.106	4.0300
	131.00	1915.11	286.659	247.849	4.0379
	132.00	1929.80	287.700	248.592	4.0459
	133.00	1944.50	288.741	249.335	4.0537
	134.00	1959.20	289.781	250.078	4.0615
	135.00	1973.89	290.822	250.821	4.0692
	136.00	1988.59	291.863	251.564	4.0769
	137.00	2003.28	292.904	252.307	4.0846
	138.00	2017.97	293.944	253.050	4.0921
	139.00	2032.67	294.985	253.793	4.0996
	140.00	2047.36	296.026	254.536	4.1071
	141.00	2062.05	297.066	255.279	4.1145
	142.00	2076.74	298.107	256.022	4.1219
	143.00	2091.42	299.147	256.765	4.1292
	144.00	2106.11	300.188	257.507	4.1364
	145.00	2120.80	301.228	258.250	4.1436
	146.00	2135.48	302.268	258.993	4.1508
	147.00	2150.17	303.309	259.736	4.1579
	148.00	2164.85	304.349	260.478	4.1649
	149.00	2179.54	305.389	261.221	4.1719
	150.00	2194.22	306.429	261.964	4.1789
	151.00	2208.90	307.470	262.706	4.1858
	152.00	2223.59	308.510	263.449	4.1926
	153.00	2238.27	309.550	264.192	4.1995
	154.00	2252.95	310.590	264.934	4.2062
	155.00	2267.63	311.630	265.677	4.2130
	156.00	2282.31	312.670	266.419	4.2197
	157.00	2296.99	313.710	267.162	4.2263
	158.00	2311.67	314.750	267.904	4.2329
	159.00	2326.34	315.790	268.647	4.2395
	160.00	2341.02	316.830	269.389	4.2460
	161.00	2355.70	317.870	270.132	4.2525
	162.00	2370.37	318.910	270.874	4.2589
	163.00	2385.06	319.950	271.617	4.2653
	164.00	2399.73	320.990	272.359	4.2717
	165.00	2414.41	322.029	273.102	4.2780
	166.00	2429.08	323.069	273.844	4.2843
	167.00	2443.75	324.109	274.586	4.2905
	168.00	2458.42	325.149	275.329	4.2967
	169.00	2473.10	326.188	276.071	4.3029
	170.00	2487.77	327.228	276.814	4.3090
	171.00	2502.45	328.268	277.556	4.3151
	172.00	2517.11	329.307	278.298	4.3212
	173.00	2531.78	330.347	279.041	4.3272
	174.00	2546.45	331.387	279.783	4.3332
	175.00	2561.13	332.426	280.525	4.3392
	176.00	2575.80	333.466	281.267	4.3451
	177.00	2590.47	334.505	282.010	4.3510
	178.00	2605.14	335.545	282.752	4.3568
	179.00	2619.80	336.585	283.494	4.3627
	180.00	2634.47	337.624	284.237	4.3685

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	2649.14	338.664	284.979	4.3742	241.00	3528.82	401.012	329.501	4.6717
182.00	2663.82	339.703	285.721	4.3799	242.00	3543.47	402.051	330.243	4.6760
183.00	2678.48	340.742	286.463	4.3856	243.00	3558.13	403.090	330.985	4.6803
184.00	2693.15	341.782	287.205	4.3913	244.00	3572.78	404.129	331.727	4.6846
185.00	2707.81	342.821	287.948	4.3969	245.00	3587.44	405.168	332.469	4.6888
186.00	2722.48	343.861	288.690	4.4025	246.00	3602.10	406.207	333.210	4.6931
187.00	2737.15	344.900	289.432	4.4081	247.00	3616.75	407.246	333.952	4.6973
188.00	2751.81	345.940	290.174	4.4137	248.00	3631.41	408.285	334.694	4.7015
189.00	2766.48	346.979	290.916	4.4192	249.00	3646.06	409.324	335.436	4.7057
190.00	2781.14	348.018	291.658	4.4247	250.00	3660.72	410.362	336.178	4.7098
191.00	2795.81	349.058	292.401	4.4301	251.00	3675.37	411.401	336.920	4.7140
192.00	2810.47	350.097	293.143	4.4355	252.00	3690.03	412.440	337.662	4.7181
193.00	2825.14	351.136	293.885	4.4409	253.00	3704.68	413.479	338.404	4.7222
194.00	2839.80	352.176	294.627	4.4463	254.00	3719.34	414.518	339.146	4.7263
195.00	2854.47	353.215	295.369	4.4517	255.00	3733.99	415.557	339.888	4.7304
196.00	2869.13	354.254	296.111	4.4570	256.00	3748.65	416.596	340.630	4.7345
197.00	2883.80	355.293	296.853	4.4623	257.00	3763.30	417.635	341.372	4.7385
198.00	2898.47	356.333	297.595	4.4675	258.00	3777.96	418.674	342.114	4.7425
199.00	2913.12	357.372	298.338	4.4728	259.00	3792.62	419.713	342.856	4.7466
200.00	2927.79	358.411	299.080	4.4780	260.00	3807.26	420.752	343.597	4.7506
201.00	2942.46	359.450	299.822	4.4831	261.00	3821.92	421.791	344.339	4.7546
202.00	2957.11	360.490	300.564	4.4883	262.00	3836.57	422.829	345.081	4.7585
203.00	2971.78	361.529	301.306	4.4934	263.00	3851.23	423.868	345.823	4.7625
204.00	2986.44	362.568	302.048	4.4985	264.00	3865.89	424.907	346.565	4.7664
205.00	3001.10	363.607	302.790	4.5036	265.00	3880.53	425.946	347.307	4.7704
206.00	3015.76	364.646	303.532	4.5087	266.00	3895.19	426.985	348.049	4.7743
207.00	3030.42	365.685	304.274	4.5137	267.00	3909.84	428.024	348.791	4.7782
208.00	3045.08	366.725	305.016	4.5187	268.00	3924.50	429.063	349.533	4.7820
209.00	3059.75	367.764	305.758	4.5237	269.00	3939.15	430.102	350.275	4.7859
210.00	3074.41	368.803	306.500	4.5287	270.00	3953.80	431.141	351.017	4.7898
211.00	3089.07	369.842	307.242	4.5336	271.00	3968.46	432.180	351.759	4.7936
212.00	3103.73	370.881	307.984	4.5385	272.00	3983.11	433.219	352.501	4.7974
213.00	3118.39	371.920	308.726	4.5434	273.00	3997.76	434.258	353.243	4.8013
214.00	3133.05	372.959	309.468	4.5483	274.00	4012.42	435.297	353.985	4.8051
215.00	3147.71	373.998	310.210	4.5531	275.00	4027.07	436.336	354.727	4.8088
216.00	3162.37	375.037	310.952	4.5579	276.00	4041.72	437.375	355.469	4.8126
217.00	3177.03	376.076	311.694	4.5627	277.00	4056.37	438.414	356.211	4.8164
218.00	3191.69	377.116	312.436	4.5675	278.00	4071.03	439.453	356.953	4.8201
219.00	3206.35	378.155	313.178	4.5723	279.00	4085.69	440.492	357.695	4.8238
220.00	3221.01	379.194	313.920	4.5770	280.00	4100.33	441.531	358.438	4.8276
221.00	3235.67	380.233	314.662	4.5817	281.00	4114.99	442.570	359.180	4.8313
222.00	3250.32	381.272	315.404	4.5864	282.00	4129.64	443.609	359.922	4.8350
223.00	3264.98	382.311	316.146	4.5911	283.00	4144.30	444.648	360.664	4.8386
224.00	3279.64	383.350	316.888	4.5957	284.00	4158.94	445.687	361.406	4.8423
225.00	3294.31	384.389	317.630	4.6004	285.00	4173.60	446.726	362.148	4.8459
226.00	3308.96	385.428	318.372	4.6050	286.00	4188.25	447.765	362.890	4.8496
227.00	3323.62	386.467	319.114	4.6095	287.00	4202.91	448.804	363.632	4.8532
228.00	3338.27	387.506	319.856	4.6141	288.00	4217.55	449.843	364.374	4.8568
229.00	3352.93	388.545	320.598	4.6187	289.00	4232.20	450.882	365.117	4.8604
230.00	3367.60	389.584	321.340	4.6232	290.00	4246.86	451.921	365.859	4.8640
231.00	3382.25	390.623	322.082	4.6277	291.00	4261.51	452.960	366.601	4.8676
232.00	3396.91	391.662	322.823	4.6322	292.00	4276.17	453.999	367.343	4.8712
233.00	3411.56	392.701	323.565	4.6367	293.00	4290.81	455.039	368.085	4.8747
234.00	3426.22	393.740	324.307	4.6411	294.00	4305.46	456.078	368.828	4.8783
235.00	3440.88	394.779	325.049	4.6455	295.00	4320.12	457.117	369.570	4.8818
236.00	3455.53	395.817	325.791	4.6499	296.00	4334.77	458.156	370.312	4.8853
237.00	3470.20	396.856	326.533	4.6543	297.00	4349.42	459.195	371.054	4.8888
238.00	3484.85	397.895	327.275	4.6587	298.00	4364.08	460.234	371.797	4.8923
239.00	3499.50	398.934	328.017	4.6631	299.00	4378.72	461.274	372.539	4.8958
240.00	3514.16	399.973	328.759	4.6674	300.00	4393.37	462.313	373.281	4.8992

.30 ATMOSPHERE ISOBAR

	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1560	1.7570	1.7219	.0273
	65.00	1.1614	3.8123	3.7770	.0592
	66.00	1.1670	5.8722	5.8367	.0906
	67.00	1.1726	7.9357	7.9001	.1217
	68.00	1.1784	10.0019	9.9660	.1523
*	68.422	1.1809	10.8743	10.8384	.1651
*	68.422	656.895	221.054	201.086	3.2369
	69.00	662.685	221.662	201.518	3.2457
	70.00	672.697	222.714	202.266	3.2609
	71.00	682.702	223.766	203.013	3.2758
	72.00	692.700	224.817	203.761	3.2905
	73.00	702.692	225.869	204.509	3.3050
	74.00	712.677	226.920	205.257	3.3193
	75.00	722.656	227.972	206.005	3.3334
	76.00	732.629	229.023	206.753	3.3473
	77.00	742.595	230.074	207.501	3.3611
	78.00	752.556	231.124	208.249	3.3746
	79.00	762.512	232.175	208.997	3.3880
	80.00	772.462	233.225	209.744	3.4012
	81.00	782.406	234.275	210.492	3.4143
	82.00	792.346	235.325	211.240	3.4271
	83.00	802.281	236.375	211.988	3.4399
	84.00	812.211	237.425	212.736	3.4524
	85.00	822.136	238.474	213.483	3.4649
	86.00	832.057	239.523	214.231	3.4771
	87.00	841.974	240.572	214.978	3.4893
	88.00	851.886	241.620	215.725	3.5012
	89.00	861.795	242.669	216.472	3.5131
	90.00	871.700	243.717	217.220	3.5248
	91.00	881.600	244.765	217.967	3.5364
	92.00	891.498	245.813	218.714	3.5478
	93.00	901.391	246.860	219.460	3.5592
	94.00	911.282	247.908	220.207	3.5704
	95.00	921.169	248.955	220.954	3.5814
	96.00	931.053	250.002	221.700	3.5924
	97.00	940.934	251.049	222.447	3.6032
	98.00	950.812	252.095	223.193	3.6140
	99.00	960.687	253.142	223.939	3.6246
	100.00	970.559	254.188	224.685	3.6351
	101.00	980.429	255.234	225.431	3.6455
	102.00	990.295	256.280	226.177	3.6558
	103.00	1000.16	257.326	226.923	3.6660
	104.00	1010.02	258.371	227.669	3.6761
	105.00	1019.88	259.416	228.415	3.6861
	106.00	1029.74	260.462	229.160	3.6960
	107.00	1039.59	261.507	229.906	3.7059
	108.00	1049.45	262.552	230.651	3.7156
	109.00	1059.30	263.597	231.397	3.7252
	110.00	1069.15	264.641	232.142	3.7348
	111.00	1078.99	265.686	232.887	3.7442
	112.00	1088.84	266.730	233.632	3.7536
	113.00	1098.68	267.774	234.377	3.7629
	114.00	1108.52	268.819	235.122	3.7721
	115.00	1118.36	269.863	235.867	3.7812
	116.00	1128.20	270.907	236.612	3.7902
	117.00	1138.04	271.950	237.357	3.7992
	118.00	1147.87	272.994	238.102	3.8081
	119.00	1157.71	274.038	238.846	3.8169
	120.00	1167.54	275.081	239.591	3.8256
	121.00	1177.37	276.124	240.335	3.8342
	122.00	1187.20	277.168	241.080	3.8428
	123.00	1197.02	278.211	241.824	3.8514
	124.00	1206.86	279.254	242.569	3.8598
	125.00	1216.68	280.297	243.313	3.8682
	126.00	1226.50	281.340	244.057	3.8765
	127.00	1236.32	282.382	244.801	3.8847
	128.00	1246.14	283.425	245.546	3.8929
	129.00	1255.96	284.468	246.290	3.9010
	130.00	1265.78	285.510	247.034	3.9091
	131.00	1275.60	286.553	247.778	3.9171
	132.00	1285.42	287.595	248.522	3.9250
	133.00	1295.23	288.637	249.266	3.9328
	134.00	1305.05	289.680	250.009	3.9407
	135.00	1314.87	290.722	250.753	3.9484
	136.00	1324.67	291.764	251.497	3.9561
	137.00	1334.48	292.806	252.241	3.9637
	138.00	1344.30	293.848	252.984	3.9713
	139.00	1354.11	294.890	253.728	3.9788
	140.00	1363.91	295.931	254.472	3.9863
	141.00	1373.72	296.973	255.215	3.9937
	142.00	1383.54	298.015	255.959	4.0011
	143.00	1393.34	299.056	256.702	4.0084
	144.00	1403.14	300.098	257.446	4.0156
	145.00	1412.95	301.139	258.189	4.0228
	146.00	1422.75	302.181	258.933	4.0300
	147.00	1432.56	303.222	259.676	4.0371
	148.00	1442.36	304.264	260.420	4.0442
	149.00	1452.16	305.305	261.163	4.0512
	150.00	1461.96	306.346	261.906	4.0582
	151.00	1471.76	307.387	262.649	4.0651
	152.00	1481.57	308.428	263.393	4.0719
	153.00	1491.36	309.470	264.136	4.0788
	154.00	1501.16	310.511	264.879	4.0856
	155.00	1510.96	311.552	265.622	4.0923
	156.00	1520.77	312.593	266.365	4.0990
	157.00	1530.56	313.633	267.108	4.1056
	158.00	1540.35	314.674	267.851	4.1122
	159.00	1550.16	315.715	268.594	4.1188
	160.00	1559.95	316.756	269.337	4.1253
	161.00	1569.74	317.797	270.080	4.1318
	162.00	1579.54	318.837	270.823	4.1383
	163.00	1589.34	319.878	271.566	4.1447
	164.00	1599.12	320.919	272.309	4.1510
	165.00	1608.92	321.959	273.052	4.1574
	166.00	1618.71	323.000	273.795	4.1636
	167.00	1628.50	324.040	274.538	4.1699
	168.00	1638.29	325.081	275.281	4.1761
	169.00	1648.09	326.121	276.024	4.1823
	170.00	1657.88	327.162	276.767	4.1884
	171.00	1667.67	328.202	277.509	4.1945
	172.00	1677.46	329.242	278.252	4.2006
	173.00	1687.25	330.283	278.995	4.2066
	174.00	1697.04	331.323	279.738	4.2126
	175.00	1706.83	332.363	280.480	4.2186
	176.00	1716.61	333.404	281.223	4.2245
	177.00	1726.40	334.444	281.966	4.2304
	178.00	1736.19	335.484	282.708	4.2363
	179.00	1745.98	336.524	283.451	4.2421
	180.00	1755.76	337.564	284.194	4.2479

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	1765.55	338.604	284.936	4.2536	241.00	2352.32	400.978	329.474	4.5513
182.00	1775.34	339.645	285.679	4.2594	242.00	2362.10	402.018	330.216	4.5556
183.00	1785.12	340.685	286.421	4.2651	243.00	2371.87	403.057	330.958	4.5599
184.00	1794.91	341.725	287.164	4.2707	244.00	2381.65	404.096	331.700	4.5641
185.00	1804.70	342.765	287.907	4.2764	245.00	2391.42	405.135	332.442	4.5684
186.00	1814.49	343.805	288.649	4.2820	246.00	2401.19	406.174	333.184	4.5726
187.00	1824.27	344.845	289.392	4.2876	247.00	2410.97	407.214	333.926	4.5768
188.00	1834.05	345.885	290.134	4.2931	248.00	2420.74	408.253	334.668	4.5810
189.00	1843.83	346.925	290.877	4.2986	249.00	2430.51	409.292	335.411	4.5852
190.00	1853.62	347.964	291.619	4.3041	250.00	2440.29	410.331	336.153	4.5894
191.00	1863.40	349.004	292.362	4.3096	251.00	2450.06	411.370	336.895	4.5935
192.00	1873.19	350.044	293.104	4.3150	252.00	2459.84	412.410	337.637	4.5977
193.00	1882.97	351.084	293.847	4.3204	253.00	2469.61	413.449	338.379	4.6018
194.00	1892.75	352.124	294.589	4.3258	254.00	2479.38	414.488	339.121	4.6059
195.00	1902.53	353.164	295.331	4.3311	255.00	2489.15	415.527	339.863	4.6100
196.00	1912.32	354.203	296.074	4.3364	256.00	2498.93	416.566	340.605	4.6140
197.00	1922.10	355.243	296.816	4.3417	257.00	2508.71	417.605	341.347	4.6181
198.00	1931.89	356.283	297.559	4.3470	258.00	2518.47	418.645	342.089	4.6221
199.00	1941.66	357.323	298.301	4.3522	259.00	2528.25	419.684	342.831	4.6261
200.00	1951.44	358.362	299.043	4.3574	260.00	2538.02	420.723	343.574	4.6301
201.00	1961.23	359.402	299.786	4.3626	261.00	2547.80	421.762	344.316	4.6341
202.00	1971.01	360.442	300.528	4.3678	262.00	2557.56	422.801	345.058	4.6381
203.00	1980.79	361.481	301.270	4.3729	263.00	2567.34	423.840	345.800	4.6421
204.00	1990.57	362.521	302.013	4.3780	264.00	2577.11	424.879	346.542	4.6460
205.00	2000.35	363.561	302.755	4.3831	265.00	2586.88	425.919	347.284	4.6499
206.00	2010.13	364.600	303.497	4.3882	266.00	2596.65	426.958	348.026	4.6538
207.00	2019.91	365.640	304.240	4.3932	267.00	2606.42	427.997	348.768	4.6577
208.00	2029.69	366.679	304.982	4.3982	268.00	2616.20	429.036	349.510	4.6616
209.00	2039.47	367.719	305.724	4.4032	269.00	2625.97	430.075	350.252	4.6655
210.00	2049.25	368.758	306.467	4.4082	270.00	2635.74	431.114	350.995	4.6694
211.00	2059.03	369.798	307.209	4.4131	271.00	2645.51	432.154	351.737	4.6732
212.00	2068.80	370.837	307.951	4.4180	272.00	2655.28	433.193	352.479	4.6770
213.00	2078.58	371.877	308.693	4.4229	273.00	2665.05	434.232	353.221	4.6808
214.00	2088.36	372.916	309.436	4.4278	274.00	2674.83	435.271	353.963	4.6846
215.00	2098.14	373.956	310.178	4.4326	275.00	2684.60	436.310	354.705	4.6884
216.00	2107.92	374.995	310.920	4.4375	276.00	2694.37	437.349	355.447	4.6922
217.00	2117.70	376.035	311.662	4.4423	277.00	2704.14	438.389	356.190	4.6960
218.00	2127.47	377.074	312.404	4.4470	278.00	2713.92	439.428	356.932	4.6997
219.00	2137.25	378.114	313.147	4.4518	279.00	2723.68	440.467	357.674	4.7034
220.00	2147.03	379.153	313.889	4.4565	280.00	2733.45	441.506	358.416	4.7071
221.00	2156.81	380.192	314.631	4.4612	281.00	2743.22	442.545	359.158	4.7109
222.00	2166.58	381.232	315.373	4.4659	282.00	2752.99	443.585	359.901	4.7145
223.00	2176.37	382.271	316.115	4.4706	283.00	2762.77	444.624	360.643	4.7182
224.00	2186.14	383.311	316.858	4.4753	284.00	2772.54	445.663	361.385	4.7219
225.00	2195.91	384.350	317.600	4.4799	285.00	2782.31	446.702	362.127	4.7255
226.00	2205.70	385.389	318.342	4.4845	286.00	2792.08	447.741	362.869	4.7292
227.00	2215.47	386.429	319.084	4.4891	287.00	2801.85	448.781	363.612	4.7328
228.00	2225.24	387.468	319.826	4.4936	288.00	2811.62	449.820	364.354	4.7364
229.00	2235.02	388.507	320.568	4.4982	289.00	2821.39	450.859	365.096	4.7400
230.00	2244.80	389.547	321.311	4.5027	290.00	2831.16	451.899	365.839	4.7436
231.00	2254.57	390.586	322.053	4.5072	291.00	2840.93	452.938	366.581	4.7472
232.00	2264.35	391.625	322.795	4.5117	292.00	2850.70	453.977	367.323	4.7508
233.00	2274.12	392.664	323.537	4.5162	293.00	2860.47	455.016	368.065	4.7543
234.00	2283.90	393.704	324.279	4.5206	294.00	2870.24	456.056	368.808	4.7579
235.00	2293.67	394.743	325.021	4.5251	295.00	2880.01	457.095	369.550	4.7614
236.00	2303.45	395.782	325.763	4.5295	296.00	2889.78	458.134	370.292	4.7649
237.00	2313.22	396.822	326.505	4.5339	297.00	2899.55	459.174	371.035	4.7684
238.00	2323.00	397.861	327.248	4.5383	298.00	2909.32	460.213	371.777	4.7719
239.00	2332.77	398.900	327.990	4.5426	299.00	2919.09	461.253	372.520	4.7754
240.00	2342.55	399.939	328.732	4.5470	300.00	2928.86	462.292	373.262	4.7788

.50 ATMOSPHERE ISOBAR

	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1560	1.7735	1.7149	.0272
	65.00	1.1614	3.8286	3.7697	.0591
	66.00	1.1669	5.8884	5.8292	.0905
	67.00	1.1726	7.9517	7.8923	.1215
	68.00	1.1784	10.0177	9.9580	.1521
	69.00	1.1843	12.0853	12.0253	.1823
	70.00	1.1903	14.1538	14.0934	.2121
	71.00	1.1965	16.2223	16.1617	.2414
*	71.925	1.2023	18.1349	18.0740	.2682
*	71.925	410.938	224.184	203.365	3.1330
	72.00	411.397	224.264	203.422	3.1341
	73.00	417.491	225.326	204.175	3.1487
	74.00	423.579	226.387	204.928	3.1632
	75.00	429.659	227.448	205.681	3.1774
	76.00	435.733	228.509	206.434	3.1915
	77.00	441.800	229.570	207.187	3.2053
	78.00	447.861	230.630	207.940	3.2190
	79.00	453.916	231.689	208.693	3.2325
	80.00	459.965	232.748	209.445	3.2458
	81.00	466.009	233.807	210.198	3.2590
	82.00	472.047	234.866	210.951	3.2720
	83.00	478.080	235.924	211.703	3.2848
	84.00	484.108	236.981	212.455	3.2975
	85.00	490.131	238.039	213.207	3.3100
	86.00	496.150	239.095	213.959	3.3223
	87.00	502.164	240.152	214.711	3.3346
	88.00	508.174	241.208	215.462	3.3466
	89.00	514.179	242.263	216.214	3.3586
	90.00	520.181	243.319	216.965	3.3703
	91.00	526.178	244.373	217.716	3.3820
	92.00	532.172	245.428	218.467	3.3935
	93.00	538.162	246.482	219.218	3.4049
	94.00	544.149	247.536	219.968	3.4162
	95.00	550.132	248.589	220.718	3.4273
	96.00	556.112	249.642	221.468	3.4384
	97.00	562.089	250.695	222.218	3.4493
	98.00	568.063	251.748	222.968	3.4601
	99.00	574.034	252.800	223.718	3.4708
	100.00	580.002	253.852	224.467	3.4813
	101.00	585.967	254.903	225.217	3.4918
	102.00	591.930	255.954	225.966	3.5021
	103.00	597.890	257.005	226.715	3.5124
	104.00	603.847	258.056	227.465	3.5225
	105.00	609.802	259.106	228.212	3.5326
	106.00	615.755	260.156	228.961	3.5426
	107.00	621.706	261.206	229.709	3.5524
	108.00	627.654	262.256	230.457	3.5622
	109.00	633.600	263.305	231.205	3.5718
	110.00	639.544	264.354	231.953	3.5814
	111.00	645.486	265.403	232.701	3.5909
	112.00	651.427	266.452	233.449	3.6003
	113.00	657.365	267.500	234.197	3.6096
	114.00	663.301	268.548	234.944	3.6189
	115.00	669.236	269.596	235.691	3.6280
	116.00	675.169	270.644	236.439	3.6371
	117.00	681.101	271.692	237.186	3.6461
	118.00	687.031	272.739	237.933	3.6550
	119.00	692.959	273.787	238.680	3.6639
	120.00	698.886	274.834	239.426	3.6726
	121.00	704.811	275.880	240.173	3.6813
	122.00	710.735	276.927	240.920	3.6899
	123.00	716.657	277.974	241.666	3.6985
	124.00	722.578	279.020	242.412	3.7069
	125.00	728.498	280.066	243.159	3.7153
	126.00	734.416	281.112	243.905	3.7237
	127.00	740.334	282.158	244.651	3.7319
	128.00	746.250	283.204	245.397	3.7401
	129.00	752.165	284.249	246.143	3.7483
	130.00	758.079	285.295	246.889	3.7563
	131.00	763.991	286.340	247.635	3.7644
	132.00	769.903	287.385	248.380	3.7723
	133.00	775.813	288.430	249.126	3.7802
	134.00	781.723	289.475	249.871	3.7880
	135.00	787.631	290.520	250.617	3.7958
	136.00	793.539	291.565	251.362	3.8035
	137.00	799.446	292.609	252.108	3.8112
	138.00	805.351	293.654	252.853	3.8187
	139.00	811.256	294.698	253.598	3.8263
	140.00	817.160	295.742	254.343	3.8338
	141.00	823.063	296.787	255.088	3.8412
	142.00	828.965	297.831	255.833	3.8486
	143.00	834.867	298.874	256.578	3.8559
	144.00	840.768	299.918	257.323	3.8632
	145.00	846.668	300.962	258.068	3.8704
	146.00	852.567	302.006	258.812	3.8776
	147.00	858.465	303.049	259.557	3.8847
	148.00	864.363	304.093	260.302	3.8918
	149.00	870.260	305.136	261.046	3.8988
	150.00	876.156	306.179	261.791	3.9058
	151.00	882.052	307.222	262.535	3.9127
	152.00	887.947	308.265	263.280	3.9196
	153.00	893.841	309.308	264.024	3.9264
	154.00	899.735	310.351	264.769	3.9332
	155.00	905.628	311.394	265.513	3.9400
	156.00	911.521	312.437	266.257	3.9467
	157.00	917.413	313.480	267.001	3.9533
	158.00	923.304	314.522	267.745	3.9600
	159.00	929.195	315.565	268.490	3.9665
	160.00	935.086	316.607	269.234	3.9731
	161.00	940.976	317.650	269.978	3.9796
	162.00	946.865	318.692	270.722	3.9860
	163.00	952.754	319.734	271.466	3.9924
	164.00	958.642	320.777	272.210	3.9988
	165.00	964.530	321.819	272.953	4.0052
	166.00	970.417	322.861	273.697	4.0115
	167.00	976.304	323.903	274.441	4.0177
	168.00	982.191	324.945	275.185	4.0239
	169.00	988.077	325.987	275.929	4.0301
	170.00	993.963	327.029	276.672	4.0363
	171.00	999.848	328.071	277.416	4.0424
	172.00	1005.73	329.112	278.160	4.0484
	173.00	1011.62	330.154	278.903	4.0545
	174.00	1017.51	331.196	279.647	4.0605
	175.00	1023.38	332.238	280.390	4.0665
	176.00	1029.27	333.279	281.134	4.0724
	177.00	1035.16	334.321	281.877	4.0783
	178.00	1041.03	335.362	282.621	4.0842
	179.00	1046.92	336.404	283.364	4.0900
	180.00	1052.80	337.445	284.108	4.0958

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	1058.68	338.486	284.851	4.1016	241.00	1411.13	400.911	329.420	4.3994
182.00	1064.56	339.528	285.594	4.1073	242.00	1417.00	401.951	330.162	4.4038
183.00	1070.45	340.569	286.338	4.1130	243.00	1422.87	402.991	330.905	4.4080
184.00	1076.33	341.610	287.081	4.1187	244.00	1428.73	404.030	331.647	4.4123
185.00	1082.20	342.651	287.824	4.1243	245.00	1434.60	405.070	332.390	4.4166
186.00	1088.09	343.692	288.568	4.1299	246.00	1440.47	406.110	333.132	4.4208
187.00	1093.97	344.733	289.311	4.1355	247.00	1446.35	407.150	333.874	4.4250
188.00	1099.84	345.775	290.054	4.1411	248.00	1452.21	408.189	334.617	4.4292
189.00	1105.72	346.816	290.797	4.1466	249.00	1458.08	409.229	335.359	4.4334
190.00	1111.60	347.857	291.540	4.1521	250.00	1463.95	410.269	336.102	4.4376
191.00	1117.48	348.898	292.283	4.1576	251.00	1469.81	411.308	336.844	4.4417
192.00	1123.35	349.938	293.027	4.1630	252.00	1475.68	412.348	337.586	4.4459
193.00	1129.23	350.979	293.770	4.1684	253.00	1481.55	413.388	338.329	4.4500
194.00	1135.11	352.020	294.513	4.1738	254.00	1487.42	414.427	339.071	4.4541
195.00	1140.99	353.061	295.256	4.1791	255.00	1493.28	415.467	339.814	4.4582
196.00	1146.86	354.102	295.999	4.1845	256.00	1499.15	416.507	340.556	4.4622
197.00	1152.75	355.142	296.742	4.1897	257.00	1505.02	417.546	341.298	4.4663
198.00	1158.62	356.183	297.485	4.1950	258.00	1510.89	418.586	342.041	4.4703
199.00	1164.49	357.224	298.228	4.2003	259.00	1516.75	419.626	342.783	4.4743
200.00	1170.37	358.265	298.971	4.2055	260.00	1522.62	420.665	343.526	4.4783
201.00	1176.25	359.305	299.714	4.2107	261.00	1528.49	421.705	344.268	4.4823
202.00	1182.13	360.346	300.457	4.2158	262.00	1534.36	422.745	345.010	4.4863
203.00	1188.00	361.386	301.200	4.2210	263.00	1540.22	423.784	345.753	4.4903
204.00	1193.87	362.427	301.942	4.2261	264.00	1546.09	424.824	346.495	4.4942
205.00	1199.75	363.467	302.685	4.2312	265.00	1551.96	425.863	347.237	4.4981
206.00	1205.62	364.508	303.428	4.2362	266.00	1557.82	426.903	347.980	4.5021
207.00	1211.50	365.548	304.171	4.2413	267.00	1563.69	427.943	348.722	4.5060
208.00	1217.38	366.589	304.914	4.2463	268.00	1569.56	428.982	349.465	4.5099
209.00	1223.24	367.629	305.657	4.2513	269.00	1575.42	430.022	350.207	4.5137
210.00	1229.12	368.669	306.399	4.2562	270.00	1581.29	431.061	350.949	4.5176
211.00	1234.99	369.710	307.142	4.2612	271.00	1587.16	432.101	351.692	4.5214
212.00	1240.87	370.750	307.885	4.2661	272.00	1593.02	433.140	352.434	4.5253
213.00	1246.74	371.790	308.628	4.2710	273.00	1598.89	434.180	353.177	4.5291
214.00	1252.61	372.831	309.370	4.2759	274.00	1604.75	435.220	353.919	4.5329
215.00	1258.49	373.871	310.113	4.2807	275.00	1610.62	436.259	354.661	4.5367
216.00	1264.36	374.911	310.856	4.2855	276.00	1616.49	437.299	355.404	4.5404
217.00	1270.24	375.951	311.599	4.2904	277.00	1622.35	438.338	356.146	4.5442
218.00	1276.10	376.992	312.341	4.2951	278.00	1628.22	439.378	356.889	4.5479
219.00	1281.98	378.032	313.084	4.2999	279.00	1634.08	440.418	357.631	4.5517
220.00	1287.85	379.072	313.826	4.3046	280.00	1639.95	441.457	358.373	4.5554
221.00	1293.72	380.112	314.569	4.3094	281.00	1645.81	442.497	359.116	4.5591
222.00	1299.59	381.152	315.312	4.3140	282.00	1651.68	443.536	359.858	4.5628
223.00	1305.46	382.192	316.054	4.3187	283.00	1657.54	444.576	360.601	4.5665
224.00	1311.33	383.232	316.797	4.3234	284.00	1663.42	445.616	361.343	4.5701
225.00	1317.21	384.272	317.540	4.3280	285.00	1669.28	446.655	362.086	4.5738
226.00	1323.08	385.312	318.282	4.3326	286.00	1675.15	447.695	362.828	4.5774
227.00	1328.95	386.352	319.025	4.3372	287.00	1681.01	448.734	363.571	4.5811
228.00	1334.82	387.392	319.767	4.3418	288.00	1686.87	449.774	364.313	4.5847
229.00	1340.69	388.432	320.510	4.3463	289.00	1692.74	450.814	365.056	4.5883
230.00	1346.57	389.472	321.252	4.3509	290.00	1698.60	451.853	365.798	4.5919
231.00	1352.44	390.512	321.995	4.3554	291.00	1704.47	452.893	366.541	4.5954
232.00	1358.31	391.552	322.737	4.3599	292.00	1710.34	453.933	367.283	4.5990
233.00	1364.17	392.592	323.480	4.3643	293.00	1716.20	454.972	368.026	4.6026
234.00	1370.04	393.632	324.222	4.3688	294.00	1722.07	456.012	368.768	4.6061
235.00	1375.91	394.672	324.965	4.3732	295.00	1727.93	457.052	369.511	4.6096
236.00	1381.79	395.712	325.707	4.3776	296.00	1733.79	458.091	370.253	4.6132
237.00	1387.66	396.752	326.450	4.3820	297.00	1739.65	459.131	370.996	4.6167
238.00	1393.53	397.792	327.192	4.3864	298.00	1745.52	460.171	371.738	4.6202
239.00	1399.39	398.831	327.935	4.3908	299.00	1751.38	461.210	372.481	4.6236
240.00	1405.26	399.871	328.677	4.3951	300.00	1757.25	462.250	373.224	4.6271

.70 ATMOSPHERE ISOBAR

	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1559	1.7900	1.7080	.0271
	65.00	1.1613	3.8449	3.7625	.0590
	66.00	1.1669	5.9045	5.8218	.0904
	67.00	1.1725	7.9677	7.8846	.1214
	68.00	1.1783	10.0335	9.9499	.1520
	69.00	1.1842	12.1009	12.0170	.1822
	70.00	1.1903	14.1692	14.0848	.2120
	71.00	1.1964	16.2376	16.1528	.2413
	72.00	1.2027	18.3056	18.2203	.2702
	73.00	1.2091	20.3726	20.2869	.2987
	74.00	1.2156	22.4383	22.3521	.3269
*	74.457	1.2187	23.3823	23.2959	.3396
*	74.457	301.637	226.331	204.937	3.0653
	75.00	304.032	226.913	205.349	3.0731
	76.00	308.439	227.984	206.107	3.0873
	77.00	312.838	229.055	206.866	3.1012
	78.00	317.231	230.125	207.624	3.1151
	79.00	321.618	231.194	208.383	3.1287
	80.00	325.998	232.263	209.141	3.1421
	81.00	330.373	233.331	209.898	3.1554
	82.00	334.741	234.398	210.656	3.1685
	83.00	339.104	235.465	211.413	3.1814
	84.00	343.462	236.531	212.170	3.1942
	85.00	347.815	237.597	212.927	3.2068
	86.00	352.163	238.662	213.684	3.2193
	87.00	356.506	239.726	214.440	3.2316
	88.00	360.845	240.790	215.196	3.2437
	89.00	365.179	241.853	215.952	3.2557
	90.00	369.509	242.916	216.707	3.2676
	91.00	373.835	243.978	217.462	3.2793
	92.00	378.157	245.039	218.217	3.2909
	93.00	382.475	246.100	218.972	3.3024
	94.00	386.790	247.160	219.726	3.3137
	95.00	391.101	248.220	220.481	3.3250
	96.00	395.409	249.280	221.234	3.3361
	97.00	399.713	250.339	221.988	3.3470
	98.00	404.015	251.397	222.741	3.3579
	99.00	408.313	252.455	223.494	3.3686
	100.00	412.608	253.513	224.247	3.3793
	101.00	416.901	254.570	225.000	3.3898
	102.00	421.191	255.626	225.752	3.4002
	103.00	425.478	256.683	226.505	3.4105
	104.00	429.763	257.738	227.257	3.4207
	105.00	434.045	258.794	228.008	3.4308
	106.00	438.325	259.849	228.760	3.4408
	107.00	442.603	260.904	229.511	3.4507
	108.00	446.878	261.958	230.262	3.4605
	109.00	451.151	263.012	231.013	3.4702
	110.00	455.422	264.066	231.764	3.4798
	111.00	459.691	265.119	232.514	3.4894
	112.00	463.958	266.172	233.265	3.4988
	113.00	468.223	267.225	234.015	3.5082
	114.00	472.487	268.277	234.765	3.5174
	115.00	476.748	269.329	235.515	3.5266
	116.00	481.008	270.381	236.264	3.5357
	117.00	485.266	271.432	237.014	3.5448
	118.00	489.522	272.484	237.763	3.5537
	119.00	493.777	273.534	238.512	3.5626
	120.00	498.031	274.585	239.261	3.5714
	121.00	502.283	275.636	240.010	3.5801
	122.00	506.533	276.686	240.759	3.5887
	123.00	510.782	277.736	241.507	3.5973
	124.00	515.030	278.785	242.256	3.6058
	125.00	519.276	279.835	243.004	3.6142
	126.00	523.521	280.884	243.752	3.6226
	127.00	527.765	281.933	244.500	3.6309
	128.00	532.008	282.982	245.248	3.6391
	129.00	536.249	284.031	245.996	3.6473
	130.00	540.489	285.079	246.743	3.6554
	131.00	544.728	286.127	247.491	3.6634
	132.00	548.966	287.175	248.238	3.6714
	133.00	553.203	288.223	248.986	3.6793
	134.00	557.439	289.271	249.733	3.6871
	135.00	561.674	290.318	250.480	3.6949
	136.00	565.908	291.365	251.227	3.7026
	137.00	570.141	292.413	251.974	3.7103
	138.00	574.374	293.460	252.721	3.7179
	139.00	578.605	294.506	253.467	3.7255
	140.00	582.835	295.553	254.214	3.7330
	141.00	587.065	296.600	254.961	3.7404
	142.00	591.293	297.646	255.707	3.7478
	143.00	595.521	298.692	256.453	3.7552
	144.00	599.748	299.738	257.200	3.7625
	145.00	603.974	300.784	257.946	3.7697
	146.00	608.200	301.830	258.692	3.7769
	147.00	612.425	302.876	259.438	3.7840
	148.00	616.649	303.921	260.184	3.7911
	149.00	620.872	304.967	260.930	3.7982
	150.00	625.095	306.012	261.676	3.8052
	151.00	629.317	307.057	262.421	3.8121
	152.00	633.538	308.102	263.167	3.8190
	153.00	637.759	309.147	263.912	3.8258
	154.00	641.979	310.192	264.658	3.8327
	155.00	646.199	311.237	265.403	3.8394
	156.00	650.418	312.281	266.149	3.8461
	157.00	654.636	313.326	266.894	3.8528
	158.00	658.854	314.370	267.639	3.8594
	159.00	663.071	315.414	268.385	3.8660
	160.00	667.288	316.459	269.130	3.8726
	161.00	671.504	317.503	269.875	3.8791
	162.00	675.720	318.547	270.620	3.8855
	163.00	679.935	319.591	271.365	3.8920
	164.00	684.149	320.635	272.110	3.8984
	165.00	688.364	321.678	272.855	3.9047
	166.00	692.577	322.722	273.599	3.9110
	167.00	696.791	323.766	274.344	3.9173
	168.00	701.003	324.809	275.089	3.9235
	169.00	705.216	325.853	275.833	3.9297
	170.00	709.428	326.896	276.578	3.9358
	171.00	713.639	327.939	277.323	3.9420
	172.00	717.850	328.982	278.067	3.9480
	173.00	722.061	330.025	278.812	3.9541
	174.00	726.271	331.069	279.556	3.9601
	175.00	730.481	332.112	280.300	3.9661
	176.00	734.691	333.154	281.045	3.9720
	177.00	738.900	334.197	281.789	3.9779
	178.00	743.109	335.240	282.533	3.9838
	179.00	747.317	336.283	283.278	3.9897
	180.00	751.525	337.325	284.022	3.9955

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	755.733	338.368	284.766	4.0012	241.00	1007.76	400.844	329.366	4.2994
182.00	759.940	339.411	285.510	4.0070	242.00	1011.95	401.884	330.109	4.3037
183.00	764.148	340.453	286.254	4.0127	243.00	1016.15	402.924	330.851	4.3080
184.00	768.354	341.495	286.998	4.0184	244.00	1020.34	403.965	331.594	4.3122
185.00	772.561	342.538	287.742	4.0240	245.00	1024.54	405.005	332.337	4.3165
186.00	776.767	343.580	288.486	4.0296	246.00	1028.73	406.045	333.080	4.3207
187.00	780.973	344.622	289.230	4.0352	247.00	1032.93	407.085	333.822	4.3249
188.00	785.178	345.664	289.974	4.0408	248.00	1037.12	408.126	334.565	4.3292
189.00	789.383	346.707	290.718	4.0463	249.00	1041.32	409.166	335.308	4.3333
190.00	793.588	347.749	291.461	4.0518	250.00	1045.51	410.206	336.051	4.3375
191.00	797.793	348.791	292.205	4.0573	251.00	1049.71	411.246	336.793	4.3417
192.00	801.998	349.833	292.949	4.0627	252.00	1053.90	412.287	337.536	4.3458
193.00	806.202	350.875	293.693	4.0681	253.00	1058.10	413.327	338.279	4.3499
194.00	810.406	351.916	294.437	4.0735	254.00	1062.29	414.367	339.021	4.3540
195.00	814.609	352.958	295.180	4.0789	255.00	1066.48	415.407	339.764	4.3581
196.00	818.812	354.000	295.924	4.0842	256.00	1070.68	416.447	340.507	4.3622
197.00	823.016	355.042	296.667	4.0895	257.00	1074.87	417.487	341.250	4.3662
198.00	827.218	356.083	297.411	4.0948	258.00	1079.06	418.528	341.992	4.3703
199.00	831.421	357.125	298.155	4.1000	259.00	1083.26	419.568	342.735	4.3743
200.00	835.623	358.167	298.898	4.1053	260.00	1087.45	420.608	343.478	4.3783
201.00	839.825	359.208	299.642	4.1105	261.00	1091.65	421.648	344.220	4.3823
202.00	844.027	360.250	300.385	4.1156	262.00	1095.84	422.688	344.963	4.3863
203.00	848.229	361.291	301.129	4.1208	263.00	1100.03	423.728	345.706	4.3902
204.00	852.431	362.333	301.872	4.1259	264.00	1104.22	424.768	346.448	4.3942
205.00	856.632	363.374	302.615	4.1310	265.00	1108.42	425.808	347.191	4.3981
206.00	860.833	364.415	303.359	4.1360	266.00	1112.62	426.848	347.934	4.4020
207.00	865.034	365.457	304.102	4.1411	267.00	1116.80	427.888	348.676	4.4059
208.00	869.234	366.498	304.846	4.1461	268.00	1121.00	428.928	349.419	4.4098
209.00	873.435	367.539	305.589	4.1511	269.00	1125.19	429.968	350.161	4.4137
210.00	877.635	368.581	306.332	4.1561	270.00	1129.38	431.008	350.904	4.4176
211.00	881.835	369.622	307.075	4.1610	271.00	1133.57	432.048	351.647	4.4214
212.00	886.035	370.663	307.819	4.1659	272.00	1137.77	433.088	352.389	4.4252
213.00	890.234	371.704	308.562	4.1708	273.00	1141.96	434.128	353.132	4.4290
214.00	894.434	372.745	309.305	4.1757	274.00	1146.15	435.168	353.875	4.4328
215.00	898.633	373.786	310.048	4.1806	275.00	1150.34	436.208	354.617	4.4366
216.00	902.832	374.827	310.792	4.1854	276.00	1154.54	437.248	355.360	4.4404
217.00	907.031	375.868	311.535	4.1902	277.00	1158.73	438.288	356.103	4.4442
218.00	911.230	376.909	312.278	4.1950	278.00	1162.93	439.328	356.845	4.4479
219.00	915.428	377.950	313.021	4.1998	279.00	1167.11	440.368	357.588	4.4517
220.00	919.627	378.991	313.764	4.2045	280.00	1171.30	441.408	358.331	4.4554
221.00	923.825	380.032	314.507	4.2092	281.00	1175.50	442.448	359.073	4.4591
222.00	928.023	381.073	315.250	4.2139	282.00	1179.69	443.488	359.816	4.4628
223.00	932.221	382.113	315.993	4.2186	283.00	1183.88	444.528	360.559	4.4665
224.00	936.419	383.154	316.736	4.2232	284.00	1188.07	445.568	361.301	4.4701
225.00	940.616	384.195	317.479	4.2279	285.00	1192.26	446.608	362.044	4.4738
226.00	944.814	385.236	318.222	4.2325	286.00	1196.45	447.648	362.787	4.4774
227.00	949.011	386.276	318.965	4.2371	287.00	1200.65	448.688	363.529	4.4811
228.00	953.208	387.317	319.708	4.2417	288.00	1204.84	449.728	364.272	4.4847
229.00	957.405	388.358	320.451	4.2462	289.00	1209.03	450.768	365.015	4.4883
230.00	961.602	389.398	321.194	4.2508	290.00	1213.22	451.808	365.758	4.4919
231.00	965.799	390.439	321.937	4.2553	291.00	1217.42	452.848	366.500	4.4955
232.00	969.996	391.479	322.680	4.2598	292.00	1221.60	453.888	367.243	4.4990
233.00	974.192	392.520	323.423	4.2642	293.00	1225.79	454.928	367.986	4.5026
234.00	978.388	393.560	324.166	4.2687	294.00	1229.98	455.968	368.728	4.5061
235.00	982.585	394.601	324.909	4.2731	295.00	1234.17	457.008	369.471	4.5096
236.00	986.781	395.641	325.652	4.2776	296.00	1238.37	458.048	370.214	4.5132
237.00	990.977	396.682	326.394	4.2820	297.00	1242.56	459.088	370.957	4.5167
238.00	995.172	397.722	327.137	4.2863	298.00	1246.75	460.128	371.700	4.5202
239.00	999.368	398.763	327.880	4.2907	299.00	1250.94	461.168	372.442	4.5237
240.00	1003.56	399.803	328.623	4.2950	300.00	1255.13	462.208	373.185	4.5271

1.00 ATMOSPHERE ISOBAR

	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1559	1.8147	1.6976	.0269
	65.00	1.1613	3.8694	3.7517	.0588
	66.00	1.1668	5.9288	5.8105	.0902
	67.00	1.1725	7.9917	7.8729	.1213
	68.00	1.1783	10.0572	9.9379	.1519
	69.00	1.1842	12.1244	12.0044	.1820
	70.00	1.1902	14.1925	14.0719	.2118
	71.00	1.1963	16.2606	16.1394	.2411
	72.00	1.2026	18.3283	18.2064	.2700
	73.00	1.2090	20.3950	20.2725	.2986
	74.00	1.2156	22.4604	22.3373	.3267
	75.00	1.2222	24.5243	24.4005	.3544
	76.00	1.2290	26.5865	26.4620	.3817
	77.00	1.2360	28.6472	28.5220	.4086
*	77.364	1.2386	29.3971	29.2716	.4183
*	77.364	217.194	228.657	206.650	2.9939
	78.00	219.195	229.347	207.138	3.0028
	79.00	222.334	230.433	207.905	3.0166
	80.00	225.467	231.517	208.672	3.0303
	81.00	228.593	232.600	209.438	3.0437
	82.00	231.713	233.682	210.204	3.0570
	83.00	234.827	234.763	210.969	3.0701
	84.00	237.936	235.843	211.734	3.0831
	85.00	241.038	236.922	212.499	3.0958
	86.00	244.136	238.000	213.263	3.1084
	87.00	247.228	239.077	214.026	3.1209
	88.00	250.315	240.153	214.789	3.1332
	89.00	253.398	241.228	215.552	3.1453
	90.00	256.476	242.302	216.314	3.1573
	91.00	259.550	243.375	217.076	3.1692
	92.00	262.620	244.448	217.838	3.1809
	93.00	265.686	245.519	218.599	3.1925
	94.00	268.748	246.590	219.359	3.2039
	95.00	271.806	247.660	220.119	3.2153
	96.00	274.861	248.729	220.879	3.2265
	97.00	277.913	249.798	221.638	3.2375
	98.00	280.961	250.866	222.397	3.2485
	99.00	284.006	251.933	223.156	3.2593
	100.00	287.048	252.999	223.914	3.2700
	101.00	290.087	254.065	224.672	3.2806
	102.00	293.123	255.130	225.429	3.2911
	103.00	296.156	256.194	226.186	3.3015
	104.00	299.187	257.258	226.943	3.3118
	105.00	302.215	258.322	227.700	3.3220
	106.00	305.241	259.384	228.456	3.3321
	107.00	308.265	260.446	229.212	3.3420
	108.00	311.286	261.508	229.967	3.3519
	109.00	314.305	262.569	230.722	3.3617
	110.00	317.321	263.630	231.477	3.3714
	111.00	320.336	264.690	232.232	3.3810
	112.00	323.349	265.749	232.986	3.3905
	113.00	326.359	266.809	233.740	3.3999
	114.00	329.368	267.867	234.494	3.4092
	115.00	332.375	268.926	235.248	3.4184
	116.00	335.380	269.983	236.001	3.4276
	117.00	338.384	271.041	236.754	3.4367
	118.00	341.385	272.098	237.507	3.4457
	119.00	344.386	273.154	238.260	3.4546
	120.00	347.384	274.211	239.012	3.4634
	121.00	350.381	275.266	239.764	3.4722
	122.00	353.377	276.322	240.516	3.4809
	123.00	356.371	277.377	241.268	3.4895
	124.00	359.364	278.432	242.019	3.4980
	125.00	362.355	279.486	242.771	3.5065
	126.00	365.346	280.540	243.522	3.5149
	127.00	368.334	281.594	244.273	3.5232
	128.00	371.322	282.648	245.024	3.5315
	129.00	374.309	283.701	245.774	3.5397
	130.00	377.294	284.754	246.525	3.5478
	131.00	380.278	285.806	247.275	3.5559
	132.00	383.261	286.859	248.025	3.5639
	133.00	386.243	287.911	248.775	3.5718
	134.00	389.224	288.963	249.525	3.5797
	135.00	392.204	290.014	250.274	3.5875
	136.00	395.183	291.065	251.024	3.5953
	137.00	398.161	292.117	251.773	3.6030
	138.00	401.138	293.167	252.522	3.6106
	139.00	404.114	294.218	253.271	3.6182
	140.00	407.089	295.268	254.020	3.6257
	141.00	410.064	296.318	254.769	3.6332
	142.00	413.037	297.368	255.517	3.6406
	143.00	416.010	298.418	256.266	3.6480
	144.00	418.982	299.468	257.014	3.6553
	145.00	421.953	300.517	257.763	3.6626
	146.00	424.923	301.566	258.511	3.6698
	147.00	427.893	302.615	259.259	3.6770
	148.00	430.862	303.664	260.007	3.6841
	149.00	433.830	304.712	260.754	3.6911
	150.00	436.798	305.760	261.502	3.6981
	151.00	439.765	306.809	262.250	3.7051
	152.00	442.731	307.857	262.997	3.7120
	153.00	445.696	308.905	263.744	3.7189
	154.00	448.661	309.952	264.492	3.7257
	155.00	451.626	311.000	265.239	3.7325
	156.00	454.589	312.047	265.986	3.7392
	157.00	457.553	313.094	266.733	3.7459
	158.00	460.515	314.142	267.480	3.7526
	159.00	463.477	315.188	268.227	3.7592
	160.00	466.439	316.235	268.973	3.7657
	161.00	469.400	317.282	269.720	3.7723
	162.00	472.360	318.328	270.467	3.7787
	163.00	475.320	319.375	271.213	3.7852
	164.00	478.279	320.421	271.960	3.7916
	165.00	481.238	321.467	272.706	3.7979
	166.00	484.197	322.513	273.452	3.8043
	167.00	487.155	323.559	274.198	3.8105
	168.00	490.113	324.605	274.944	3.8168
	169.00	493.070	325.651	275.690	3.8230
	170.00	496.026	326.696	276.436	3.8292
	171.00	498.983	327.742	277.182	3.8353
	172.00	501.938	328.787	277.928	3.8414
	173.00	504.894	329.832	278.674	3.8474
	174.00	507.849	330.877	279.420	3.8535
	175.00	510.804	331.922	280.165	3.8595
	176.00	513.758	332.967	280.911	3.8654
	177.00	516.712	334.012	281.656	3.8713
	178.00	519.665	335.057	282.402	3.8772
	179.00	522.619	336.101	283.147	3.8831
	180.00	525.571	337.146	283.893	3.8889

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	528.524	338.190	284.638	3.8947	241.00	705.233	400.742	329.285	4.1932
182.00	531.476	339.235	285.383	3.9004	242.00	708.173	401.784	330.028	4.1975
183.00	534.428	340.279	286.128	3.9062	243.00	711.113	402.825	330.771	4.2018
184.00	537.379	341.323	286.873	3.9118	244.00	714.052	403.866	331.515	4.2061
185.00	540.331	342.367	287.618	3.9175	245.00	716.992	404.907	332.258	4.2103
186.00	543.281	343.411	288.363	3.9231	246.00	719.932	405.948	333.001	4.2146
187.00	546.232	344.455	289.108	3.9287	247.00	722.871	406.989	333.744	4.2188
188.00	549.182	345.499	289.853	3.9343	248.00	725.811	408.030	334.488	4.2230
189.00	552.132	346.543	290.598	3.9398	249.00	728.750	409.071	335.231	4.2272
190.00	555.082	347.587	291.343	3.9453	250.00	731.689	410.112	335.974	4.2313
191.00	558.031	348.630	292.088	3.9508	251.00	734.628	411.153	336.717	4.2355
192.00	560.980	349.674	292.833	3.9563	252.00	737.567	412.194	337.461	4.2396
193.00	563.929	350.717	293.577	3.9617	253.00	740.506	413.235	338.204	4.2438
194.00	566.878	351.761	294.322	3.9671	254.00	743.444	414.276	338.947	4.2479
195.00	569.826	352.804	295.067	3.9724	255.00	746.383	415.317	339.690	4.2520
196.00	572.774	353.847	295.811	3.9778	256.00	749.322	416.358	340.433	4.2560
197.00	575.722	354.891	296.556	3.9831	257.00	752.260	417.399	341.176	4.2601
198.00	578.670	355.934	297.300	3.9884	258.00	755.198	418.440	341.919	4.2641
199.00	581.617	356.977	298.045	3.9936	259.00	758.137	419.481	342.663	4.2682
200.00	584.564	358.020	298.789	3.9989	260.00	761.075	420.521	343.406	4.2722
201.00	587.511	359.063	299.534	4.0041	261.00	764.013	421.562	344.149	4.2762
202.00	590.457	360.106	300.278	4.0092	262.00	766.951	422.603	344.892	4.2801
203.00	593.404	361.149	301.022	4.0144	263.00	769.889	423.644	345.635	4.2841
204.00	596.350	362.192	301.766	4.0195	264.00	772.827	424.685	346.378	4.2881
205.00	599.296	363.234	302.511	4.0246	265.00	775.764	425.725	347.121	4.2920
206.00	602.242	364.277	303.255	4.0297	266.00	778.702	426.766	347.864	4.2959
207.00	605.187	365.320	303.999	4.0347	267.00	781.640	427.807	348.607	4.2998
208.00	608.133	366.362	304.743	4.0398	268.00	784.577	428.847	349.350	4.3037
209.00	611.078	367.405	305.487	4.0448	269.00	787.515	429.888	350.093	4.3076
210.00	614.023	368.447	306.231	4.0497	270.00	790.452	430.929	350.836	4.3114
211.00	616.967	369.490	306.975	4.0547	271.00	793.389	431.969	351.579	4.3153
212.00	619.912	370.532	307.719	4.0596	272.00	796.326	433.010	352.322	4.3191
213.00	622.856	371.574	308.463	4.0645	273.00	799.263	434.051	353.065	4.3229
214.00	625.800	372.616	309.207	4.0694	274.00	802.200	435.091	353.808	4.3268
215.00	628.744	373.659	309.951	4.0743	275.00	805.137	436.132	354.551	4.3305
216.00	631.688	374.701	310.695	4.0791	276.00	808.074	437.172	355.294	4.3343
217.00	634.632	375.743	311.439	4.0839	277.00	811.011	438.213	356.037	4.3381
218.00	637.575	376.785	312.183	4.0887	278.00	813.948	439.254	356.780	4.3418
219.00	640.519	377.827	312.927	4.0935	279.00	816.885	440.294	357.523	4.3456
220.00	643.462	378.869	313.670	4.0982	280.00	819.821	441.335	358.267	4.3493
221.00	646.405	379.911	314.414	4.1029	281.00	822.758	442.375	359.010	4.3530
222.00	649.347	380.953	315.158	4.1076	282.00	825.694	443.416	359.753	4.3567
223.00	652.290	381.995	315.902	4.1123	283.00	828.630	444.456	360.496	4.3604
224.00	655.232	383.037	316.645	4.1170	284.00	831.567	445.497	361.239	4.3641
225.00	658.175	384.078	317.389	4.1216	285.00	834.503	446.538	361.982	4.3677
226.00	661.117	385.120	318.133	4.1262	286.00	837.439	447.578	362.725	4.3714
227.00	664.059	386.162	318.876	4.1308	287.00	840.375	448.619	363.468	4.3750
228.00	667.001	387.204	319.620	4.1354	288.00	843.311	449.659	364.211	4.3786
229.00	669.943	388.245	320.363	4.1400	289.00	846.247	450.700	364.954	4.3822
230.00	672.884	389.287	321.107	4.1445	290.00	849.183	451.740	365.697	4.3858
231.00	675.826	390.328	321.850	4.1490	291.00	852.119	452.781	366.440	4.3894
232.00	678.767	391.370	322.594	4.1535	292.00	855.055	453.821	367.183	4.3930
233.00	681.708	392.411	323.337	4.1580	293.00	857.991	454.862	367.926	4.3965
234.00	684.649	393.453	324.081	4.1625	294.00	860.927	455.902	368.669	4.4001
235.00	687.590	394.494	324.824	4.1669	295.00	863.862	456.943	369.412	4.4036
236.00	690.531	395.536	325.568	4.1713	296.00	866.798	457.983	370.155	4.4071
237.00	693.471	396.577	326.311	4.1757	297.00	869.733	459.024	370.898	4.4106
238.00	696.412	397.618	327.055	4.1801	298.00	872.669	460.064	371.641	4.4141
239.00	699.352	398.660	327.798	4.1845	299.00	875.604	461.105	372.384	4.4176
240.00	702.293	399.701	328.541	4.1888	300.00	878.540	462.145	373.128	4.4211

2.00 ATMOSPHERE ISOBAR

	TEMPER-ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1557	1.8971	1.6629	.0264
	65.00	1.1611	3.9510	3.7157	.0582
	66.00	1.1666	6.0096	5.7731	.0897
	67.00	1.1722	8.0717	7.8342	.1207
	68.00	1.1780	10.1364	9.8977	.1513
	69.00	1.1839	12.2028	11.9628	.1814
	70.00	1.1899	14.2699	14.0288	.2112
	71.00	1.1961	16.3372	16.0948	.2405
	72.00	1.2023	18.4039	18.1603	.2694
	73.00	1.2087	20.4697	20.2247	.2979
	74.00	1.2152	22.5341	22.2878	.3260
	75.00	1.2219	24.5969	24.3493	.3537
	76.00	1.2287	26.6581	26.4091	.3810
	77.00	1.2356	28.7176	28.4672	.4079
	78.00	1.2427	30.7757	30.5238	.4345
	79.00	1.2500	32.8325	32.5792	.4607
	80.00	1.2574	34.8887	34.6339	.4865
	81.00	1.2650	36.9447	36.6883	.5121
	82.00	1.2727	39.0012	38.7433	.5373
	83.00	1.2806	41.0592	40.7997	.5622
*	83.776	1.2869	42.6585	42.3977	.5814
*	83.776	114.245	233.167	210.015	2.8554
	84.00	114.617	233.420	210.193	2.8584
	85.00	116.275	234.552	210.989	2.8718
	86.00	117.927	235.681	211.783	2.8851
	87.00	119.572	236.808	212.576	2.8981
	88.00	121.210	237.931	213.368	2.9109
	89.00	122.843	239.052	214.158	2.9236
	90.00	124.470	240.170	214.947	2.9361
	91.00	126.092	241.287	215.734	2.9484
	92.00	127.709	242.400	216.520	2.9606
	93.00	129.321	243.512	217.305	2.9726
	94.00	130.929	244.622	218.089	2.9845
	95.00	132.532	245.729	218.872	2.9962
	96.00	134.131	246.835	219.653	3.0078
	97.00	135.726	247.939	220.434	3.0192
	98.00	137.317	249.041	221.214	3.0305
	99.00	138.904	250.141	221.992	3.0417
	100.00	140.488	251.240	222.770	3.0527
	101.00	142.069	252.337	223.547	3.0636
	102.00	143.646	253.433	224.323	3.0744
	103.00	145.220	254.527	225.098	3.0851
	104.00	146.792	255.620	225.873	3.0957
	105.00	148.360	256.711	226.646	3.1061
	106.00	149.926	257.801	227.419	3.1164
	107.00	151.489	258.890	228.191	3.1267
	108.00	153.049	259.978	228.962	3.1368
	109.00	154.607	261.064	229.733	3.1468
	110.00	156.163	262.149	230.503	3.1567
	111.00	157.716	263.233	231.272	3.1665
	112.00	159.267	264.316	232.041	3.1762
	113.00	160.816	265.398	232.809	3.1858
	114.00	162.363	266.479	233.576	3.1954
	115.00	163.908	267.559	234.343	3.2048
	116.00	165.451	268.638	235.109	3.2141
	117.00	166.993	269.716	235.875	3.2234
	118.00	168.532	270.793	236.640	3.2326
	119.00	170.070	271.870	237.405	3.2417
	120.00	171.606	272.945	238.169	3.2507
	121.00	173.140	274.020	238.933	3.2596
	122.00	174.673	275.094	239.696	3.2684
	123.00	176.204	276.167	240.459	3.2772
	124.00	177.734	277.239	241.222	3.2859
	125.00	179.263	278.311	241.984	3.2945
	126.00	180.790	279.382	242.745	3.3030
	127.00	182.315	280.452	243.506	3.3115
	128.00	183.840	281.522	244.267	3.3198
	129.00	185.363	282.591	245.027	3.3282
	130.00	186.885	283.659	245.787	3.3364
	131.00	188.406	284.727	246.547	3.3446
	132.00	189.925	285.794	247.306	3.3527
	133.00	191.444	286.861	248.065	3.3608
	134.00	192.961	287.927	248.823	3.3687
	135.00	194.477	288.992	249.581	3.3767
	136.00	195.993	290.057	250.339	3.3845
	137.00	197.507	291.122	251.097	3.3923
	138.00	199.020	292.185	251.854	3.4001
	139.00	200.533	293.249	252.611	3.4077
	140.00	202.044	294.312	253.368	3.4154
	141.00	203.555	295.374	254.124	3.4229
	142.00	205.064	296.436	254.880	3.4304
	143.00	206.573	297.498	255.636	3.4379
	144.00	208.081	298.559	256.392	3.4453
	145.00	209.588	299.620	257.147	3.4526
	146.00	211.095	300.680	257.902	3.4599
	147.00	212.600	301.740	258.657	3.4671
	148.00	214.105	302.800	259.411	3.4743
	149.00	215.609	303.859	260.166	3.4815
	150.00	217.113	304.918	260.920	3.4885
	151.00	218.615	305.976	261.674	3.4956
	152.00	220.118	307.034	262.428	3.5026
	153.00	221.619	308.092	263.181	3.5095
	154.00	223.120	309.149	263.934	3.5164
	155.00	224.620	310.207	264.687	3.5232
	156.00	226.119	311.263	265.440	3.5300
	157.00	227.618	312.320	266.193	3.5368
	158.00	229.117	313.376	266.946	3.5435
	159.00	230.615	314.432	267.698	3.5501
	160.00	232.112	315.487	268.450	3.5567
	161.00	233.609	316.543	269.202	3.5633
	162.00	235.105	317.598	269.954	3.5699
	163.00	236.600	318.652	270.705	3.5763
	164.00	238.096	319.707	271.457	3.5828
	165.00	239.590	320.761	272.208	3.5892
	166.00	241.084	321.815	272.959	3.5956
	167.00	242.578	322.869	273.710	3.6019
	168.00	244.071	323.922	274.461	3.6082
	169.00	245.564	324.975	275.212	3.6144
	170.00	247.057	326.028	275.962	3.6207
	171.00	248.549	327.081	276.713	3.6268
	172.00	250.040	328.134	277.463	3.6330
	173.00	251.531	329.186	278.213	3.6391
	174.00	253.022	330.238	278.963	3.6451
	175.00	254.512	331.290	279.713	3.6512
	176.00	256.002	332.342	280.463	3.6572
	177.00	257.492	333.393	281.212	3.6631
	178.00	258.981	334.444	281.962	3.6690
	179.00	260.469	335.495	282.711	3.6749
	180.00	261.958	336.546	283.461	3.6808

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	263.446	337.597	284.210	3.6866	241.00	352.286	400.405	329.014	3.9863
182.00	264.934	338.648	284.959	3.6924	242.00	353.762	401.449	329.759	3.9907
183.00	266.421	339.698	285.708	3.6981	243.00	355.237	402.493	330.504	3.9950
184.00	267.908	340.748	286.457	3.7039	244.00	356.713	403.537	331.249	3.9993
185.00	269.395	341.798	287.205	3.7096	245.00	358.188	404.581	331.994	4.0035
186.00	270.881	342.848	287.954	3.7152	246.00	359.663	405.625	332.739	4.0078
187.00	272.368	343.898	288.703	3.7208	247.00	361.138	406.669	333.484	4.0120
188.00	273.853	344.947	289.451	3.7264	248.00	362.613	407.713	334.229	4.0162
189.00	275.339	345.997	290.199	3.7320	249.00	364.087	408.756	334.974	4.0204
190.00	276.824	347.046	290.948	3.7375	250.00	365.562	409.800	335.719	4.0246
191.00	278.309	348.095	291.696	3.7430	251.00	367.037	410.843	336.464	4.0288
192.00	279.794	349.144	292.444	3.7485	252.00	368.511	411.887	337.208	4.0329
193.00	281.278	350.193	293.192	3.7540	253.00	369.985	412.931	337.953	4.0371
194.00	282.762	351.241	293.940	3.7594	254.00	371.460	413.974	338.698	4.0412
195.00	284.246	352.290	294.687	3.7648	255.00	372.934	415.017	339.443	4.0453
196.00	285.730	353.338	295.435	3.7701	256.00	374.408	416.061	340.187	4.0494
197.00	287.213	354.386	296.183	3.7755	257.00	375.882	417.104	340.932	4.0534
198.00	288.696	355.434	296.930	3.7808	258.00	377.356	418.147	341.676	4.0575
199.00	290.179	356.482	297.678	3.7861	259.00	378.829	419.191	342.421	4.0615
200.00	291.662	357.530	298.425	3.7913	260.00	380.303	420.234	343.166	4.0655
201.00	293.144	358.578	299.172	3.7965	261.00	381.777	421.277	343.910	4.0695
202.00	294.626	359.625	299.919	3.8017	262.00	383.250	422.320	344.655	4.0735
203.00	296.108	360.673	300.667	3.8069	263.00	384.723	423.363	345.399	4.0775
204.00	297.590	361.720	301.414	3.8121	264.00	386.197	424.406	346.144	4.0815
205.00	299.071	362.767	302.161	3.8172	265.00	387.670	425.449	346.888	4.0854
206.00	300.553	363.815	302.908	3.8223	266.00	389.143	426.492	347.632	4.0893
207.00	302.034	364.862	303.654	3.8274	267.00	390.616	427.535	348.377	4.0932
208.00	303.515	365.908	304.401	3.8324	268.00	392.089	428.578	349.121	4.0971
209.00	304.995	366.955	305.148	3.8374	269.00	393.562	429.621	349.866	4.1010
210.00	306.476	368.002	305.895	3.8424	270.00	395.035	430.664	350.610	4.1049
211.00	307.956	369.048	306.641	3.8474	271.00	396.508	431.706	351.354	4.1088
212.00	309.436	370.095	307.388	3.8523	272.00	397.980	432.749	352.099	4.1126
213.00	310.916	371.141	308.134	3.8573	273.00	399.453	433.792	352.843	4.1164
214.00	312.396	372.188	308.881	3.8622	274.00	400.925	434.835	353.587	4.1202
215.00	313.875	373.234	309.627	3.8670	275.00	402.398	435.877	354.331	4.1240
216.00	315.354	374.280	310.373	3.8719	276.00	403.870	436.920	355.076	4.1278
217.00	316.834	375.326	311.120	3.8767	277.00	405.342	437.962	355.820	4.1316
218.00	318.313	376.372	311.866	3.8815	278.00	406.815	439.005	356.564	4.1353
219.00	319.791	377.417	312.612	3.8863	279.00	408.287	440.048	357.308	4.1391
220.00	321.270	378.463	313.358	3.8911	280.00	409.759	441.090	358.053	4.1428
221.00	322.748	379.509	314.104	3.8958	281.00	411.231	442.133	358.797	4.1465
222.00	324.227	380.554	314.850	3.9005	282.00	412.703	443.175	359.541	4.1502
223.00	325.705	381.600	315.596	3.9052	283.00	414.175	444.218	360.285	4.1539
224.00	327.183	382.645	316.342	3.9099	284.00	415.646	445.260	361.029	4.1576
225.00	328.661	383.690	317.087	3.9146	285.00	417.118	446.302	361.774	4.1613
226.00	330.138	384.736	317.833	3.9192	286.00	418.590	447.345	362.518	4.1649
227.00	331.616	385.781	318.579	3.9238	287.00	420.061	448.387	363.262	4.1686
228.00	333.093	386.826	319.325	3.9284	288.00	421.533	449.430	364.006	4.1722
229.00	334.570	387.871	320.070	3.9330	289.00	423.005	450.472	364.750	4.1758
230.00	336.047	388.916	320.816	3.9375	290.00	424.476	451.514	365.494	4.1794
231.00	337.524	389.960	321.561	3.9421	291.00	425.947	452.556	366.238	4.1830
232.00	339.001	391.005	322.307	3.9466	292.00	427.419	453.599	366.982	4.1866
233.00	340.478	392.050	323.052	3.9511	293.00	428.890	454.641	367.727	4.1901
234.00	341.954	393.095	323.798	3.9556	294.00	430.361	455.683	368.471	4.1937
235.00	343.431	394.139	324.543	3.9600	295.00	431.832	456.725	369.215	4.1972
236.00	344.907	395.184	325.288	3.9644	296.00	433.303	457.768	369.959	4.2007
237.00	346.383	396.228	326.034	3.9689	297.00	434.774	458.810	370.703	4.2043
238.00	347.859	397.272	326.779	3.9733	298.00	436.245	459.852	371.447	4.2078
239.00	349.335	398.317	327.524	3.9776	299.00	437.716	460.894	372.191	4.2112
240.00	350.811	399.361	328.269	3.9820	300.00	439.187	461.936	372.935	4.2147

3.00 ATMOSPHERE ISOBAR

	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1555	1.9795	1.6283	.0258
	65.00	1.1609	4.0326	3.6798	.0577
	66.00	1.1664	6.0904	5.7359	.0891
	67.00	1.1720	8.1517	7.7955	.1201
	68.00	1.1778	10.2156	9.8576	.1507
	69.00	1.1837	12.2811	11.9213	.1808
	70.00	1.1897	14.3474	13.9858	.2106
	71.00	1.1958	16.4138	16.0503	.2399
	72.00	1.2020	18.4796	18.1142	.2688
	73.00	1.2084	20.5444	20.1771	.2972
	74.00	1.2149	22.6078	22.2385	.3253
	75.00	1.2216	24.6696	24.2983	.3530
	76.00	1.2284	26.7297	26.3563	.3803
	77.00	1.2353	28.7881	28.4126	.4072
	78.00	1.2424	30.8450	30.4673	.4337
	79.00	1.2496	32.9006	32.5208	.4599
	80.00	1.2570	34.9554	34.5733	.4858
	81.00	1.2645	37.0100	36.6256	.5113
	82.00	1.2723	39.0651	38.6784	.5365
	83.00	1.2802	41.1215	40.7324	.5614
	84.00	1.2883	43.1802	42.7886	.5861
	85.00	1.2966	45.2423	44.8482	.6105
	86.00	1.3051	47.3090	46.9123	.6347
	87.00	1.3138	49.3817	48.9823	.6586
	88.00	1.3228	51.4617	51.0596	.6824
*	88.076	1.3235	51.6206	51.2183	.6842
*	88.076	78.0799	235.624	211.890	2.7733
	89.00	79.1537	236.713	212.652	2.7856
	90.00	80.3093	237.887	213.475	2.7988
	91.00	81.4583	239.056	214.295	2.8117
	92.00	82.6009	240.221	215.112	2.8244
	93.00	83.7377	241.381	215.927	2.8369
	94.00	84.8688	242.538	216.740	2.8493
	95.00	85.9947	243.690	217.550	2.8615
	96.00	87.1156	244.839	218.358	2.8735
	97.00	88.2317	245.984	219.164	2.8854
	98.00	89.3433	247.127	219.969	2.8971
	99.00	90.4506	248.266	220.771	2.9087
	100.00	91.5538	249.402	221.572	2.9201
	101.00	92.6532	250.535	222.371	2.9314
	102.00	93.7488	251.665	223.168	2.9425
	103.00	94.8409	252.793	223.964	2.9535
	104.00	95.9296	253.918	224.758	2.9644
	105.00	97.0151	255.041	225.551	2.9751
	106.00	98.0975	256.162	226.343	2.9858
	107.00	99.1769	257.280	227.133	2.9963
	108.00	100.254	258.397	227.922	3.0066
	109.00	101.327	259.511	228.710	3.0169
	110.00	102.399	260.623	229.497	3.0271
	111.00	103.467	261.734	230.282	3.0371
	112.00	104.534	262.842	231.067	3.0471
	113.00	105.598	263.949	231.850	3.0569
	114.00	106.659	265.054	232.632	3.0666
	115.00	107.719	266.158	233.414	3.0763
	116.00	108.776	267.260	234.194	3.0858
	117.00	109.832	268.360	234.974	3.0953
	118.00	110.886	269.459	235.753	3.1046
	119.00	111.937	270.556	236.530	3.1139
	120.00	112.987	271.653	237.307	3.1231
	121.00	114.035	272.747	238.084	3.1321
	122.00	115.082	273.841	238.859	3.1411
	123.00	116.127	274.933	239.634	3.1501
	124.00	117.170	276.024	240.408	3.1589
	125.00	118.212	277.114	241.181	3.1676
	126.00	119.252	278.203	241.953	3.1763
	127.00	120.291	279.291	242.725	3.1849
	128.00	121.329	280.377	243.496	3.1934
	129.00	122.365	281.463	244.267	3.2019
	130.00	123.400	282.547	245.037	3.2103
	131.00	124.434	283.631	245.806	3.2186
	132.00	125.466	284.714	246.575	3.2268
	133.00	126.497	285.796	247.344	3.2350
	134.00	127.528	286.876	248.111	3.2431
	135.00	128.557	287.956	248.878	3.2511
	136.00	129.585	289.036	249.645	3.2591
	137.00	130.612	290.114	250.411	3.2670
	138.00	131.637	291.192	251.177	3.2748
	139.00	132.662	292.268	251.942	3.2826
	140.00	133.686	293.344	252.707	3.2903
	141.00	134.709	294.420	253.471	3.2979
	142.00	135.732	295.494	254.235	3.3055
	143.00	136.753	296.568	254.999	3.3131
	144.00	137.773	297.641	255.762	3.3205
	145.00	138.793	298.714	256.525	3.3280
	146.00	139.812	299.786	257.287	3.3353
	147.00	140.830	300.857	258.049	3.3426
	148.00	141.847	301.928	258.810	3.3499
	149.00	142.863	302.998	259.571	3.3571
	150.00	143.879	304.068	260.332	3.3643
	151.00	144.894	305.137	261.093	3.3714
	152.00	145.908	306.205	261.853	3.3784
	153.00	146.922	307.273	262.613	3.3854
	154.00	147.935	308.340	263.372	3.3924
	155.00	148.947	309.407	264.131	3.3993
	156.00	149.959	310.474	264.890	3.4061
	157.00	150.970	311.540	265.649	3.4130
	158.00	151.981	312.605	266.407	3.4197
	159.00	152.991	313.670	267.165	3.4264
	160.00	154.000	314.735	267.922	3.4331
	161.00	155.009	315.799	268.680	3.4397
	162.00	156.017	316.862	269.437	3.4463
	163.00	157.025	317.925	270.194	3.4529
	164.00	158.032	318.988	270.951	3.4594
	165.00	159.039	320.051	271.707	3.4658
	166.00	160.045	321.113	272.463	3.4722
	167.00	161.051	322.174	273.219	3.4786
	168.00	162.056	323.236	273.975	3.4850
	169.00	163.061	324.297	274.730	3.4913
	170.00	164.065	325.357	275.485	3.4975
	171.00	165.069	326.417	276.240	3.5037
	172.00	166.073	327.477	276.995	3.5099
	173.00	167.076	328.537	277.750	3.5161
	174.00	168.078	329.596	278.504	3.5222
	175.00	169.081	330.655	279.259	3.5282
	176.00	170.083	331.713	280.013	3.5343
	177.00	171.084	332.772	280.766	3.5403
	178.00	172.085	333.829	281.520	3.5462
	179.00	173.086	334.887	282.273	3.5521
	180.00	174.086	335.944	283.027	3.5580

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	175.086	337.002	283.780	3.5639	241.00	234.639	400.068	328.743	3.8649
182.00	176.086	338.058	284.533	3.5697	242.00	235.626	401.115	329.490	3.8692
183.00	177.085	339.115	285.285	3.5755	243.00	236.614	402.162	330.237	3.8735
184.00	178.084	340.171	286.038	3.5813	244.00	237.601	403.208	330.984	3.8778
185.00	179.083	341.227	286.790	3.5870	245.00	238.588	404.255	331.731	3.8821
186.00	180.081	342.283	287.543	3.5927	246.00	239.575	405.302	332.477	3.8864
187.00	181.080	343.338	288.295	3.5983	247.00	240.561	406.348	333.224	3.8906
188.00	182.077	344.394	289.047	3.6040	248.00	241.548	407.395	333.970	3.8949
189.00	183.075	345.449	289.799	3.6096	249.00	242.535	408.441	334.717	3.8991
190.00	184.072	346.504	290.550	3.6151	250.00	243.521	409.488	335.463	3.9033
191.00	185.069	347.558	291.302	3.6207	251.00	244.507	410.534	336.210	3.9074
192.00	186.065	348.612	292.053	3.6262	252.00	245.494	411.580	336.956	3.9116
193.00	187.062	349.666	292.805	3.6316	253.00	246.480	412.626	337.702	3.9157
194.00	188.058	350.720	293.556	3.6371	254.00	247.466	413.672	338.449	3.9199
195.00	189.053	351.774	294.307	3.6425	255.00	248.452	414.718	339.195	3.9240
196.00	190.049	352.827	295.057	3.6479	256.00	249.438	415.764	339.941	3.9281
197.00	191.044	353.881	295.808	3.6532	257.00	250.424	416.810	340.687	3.9321
198.00	192.039	354.934	296.559	3.6586	258.00	251.409	417.855	341.433	3.9362
199.00	193.034	355.987	297.309	3.6639	259.00	252.395	418.901	342.179	3.9402
200.00	194.028	357.039	298.060	3.6692	260.00	253.380	419.946	342.925	3.9443
201.00	195.023	358.092	298.810	3.6744	261.00	254.366	420.992	343.671	3.9483
202.00	196.017	359.144	299.560	3.6796	262.00	255.351	422.037	344.417	3.9523
203.00	197.011	360.196	300.310	3.6848	263.00	256.336	423.083	345.163	3.9563
204.00	198.004	361.248	301.060	3.6900	264.00	257.321	424.128	345.909	3.9602
205.00	198.997	362.300	301.810	3.6951	265.00	258.306	425.173	346.655	3.9642
206.00	199.991	363.351	302.559	3.7003	266.00	259.291	426.219	347.401	3.9681
207.00	200.984	364.403	303.309	3.7053	267.00	260.276	427.264	348.146	3.9720
208.00	201.976	365.454	304.058	3.7104	268.00	261.261	428.309	348.892	3.9760
209.00	202.969	366.505	304.808	3.7155	269.00	262.246	429.354	349.638	3.9798
210.00	203.961	367.556	305.557	3.7205	270.00	263.230	430.399	350.384	3.9837
211.00	204.953	368.607	306.306	3.7255	271.00	264.215	431.444	351.129	3.9876
212.00	205.945	369.657	307.055	3.7304	272.00	265.199	432.489	351.875	3.9914
213.00	206.937	370.708	307.804	3.7354	273.00	266.184	433.533	352.620	3.9953
214.00	207.928	371.758	308.553	3.7403	274.00	267.168	434.578	353.366	3.9991
215.00	208.920	372.808	309.302	3.7452	275.00	268.152	435.623	354.111	4.0029
216.00	209.911	373.858	310.051	3.7501	276.00	269.137	436.668	354.857	4.0067
217.00	210.902	374.908	310.799	3.7549	277.00	270.121	437.712	355.602	4.0105
218.00	211.893	375.958	311.548	3.7597	278.00	271.105	438.757	356.348	4.0142
219.00	212.883	377.007	312.296	3.7645	279.00	272.089	439.801	357.093	4.0180
220.00	213.874	378.057	313.045	3.7693	280.00	273.073	440.846	357.839	4.0217
221.00	214.864	379.106	313.793	3.7741	281.00	274.057	441.890	358.584	4.0254
222.00	215.854	380.155	314.541	3.7788	282.00	275.040	442.935	359.329	4.0292
223.00	216.844	381.204	315.289	3.7835	283.00	276.024	443.979	360.075	4.0328
224.00	217.834	382.253	316.037	3.7882	284.00	277.008	445.023	360.820	4.0365
225.00	218.824	383.302	316.785	3.7929	285.00	277.991	446.068	361.565	4.0402
226.00	219.813	384.351	317.533	3.7975	286.00	278.975	447.112	362.311	4.0439
227.00	220.803	385.399	318.281	3.8022	287.00	279.958	448.156	363.056	4.0475
228.00	221.792	386.448	319.029	3.8068	288.00	280.941	449.200	363.801	4.0511
229.00	222.781	387.496	319.776	3.8114	289.00	281.925	450.244	364.546	4.0548
230.00	223.770	388.544	320.524	3.8159	290.00	282.908	451.288	365.292	4.0584
231.00	224.759	389.592	321.272	3.8205	291.00	283.891	452.332	366.037	4.0620
232.00	225.747	390.640	322.019	3.8250	292.00	284.874	453.377	366.782	4.0655
233.00	226.736	391.688	322.766	3.8295	293.00	285.857	454.421	367.527	4.0691
234.00	227.724	392.736	323.514	3.8340	294.00	286.840	455.464	368.272	4.0727
235.00	228.712	393.784	324.261	3.8385	295.00	287.823	456.508	369.017	4.0762
236.00	229.700	394.831	325.008	3.8429	296.00	288.806	457.552	369.763	4.0797
237.00	230.688	395.879	325.755	3.8474	297.00	289.789	458.596	370.508	4.0833
238.00	231.676	396.926	326.503	3.8518	298.00	290.772	459.640	371.253	4.0868
239.00	232.664	397.973	327.250	3.8562	299.00	291.755	460.684	371.998	4.0903
240.00	233.651	399.021	327.997	3.8605	300.00	292.737	461.728	372.743	4.0938

4.00 ATMOSPHERE ISOBAR

	TEMPER-ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1552	2.0620	1.5938	.0253
	65.00	1.1606	4.1143	3.6439	.0571
	66.00	1.1662	6.1713	5.6986	.0885
	67.00	1.1718	8.2318	7.7569	.1195
	68.00	1.1775	10.2949	9.8176	.1501
	69.00	1.1834	12.3595	11.8799	.1802
	70.00	1.1894	14.4250	13.9429	.2099
	71.00	1.1955	16.4904	16.0059	.2392
	72.00	1.2018	18.5553	18.0683	.2681
	73.00	1.2081	20.6192	20.1296	.2966
	74.00	1.2146	22.6817	22.1894	.3246
	75.00	1.2213	24.7424	24.2475	.3523
	76.00	1.2280	26.8015	26.3037	.3796
	77.00	1.2349	28.8587	28.3582	.4065
	78.00	1.2420	30.9144	30.4110	.4330
	79.00	1.2492	32.9688	32.4625	.4592
	80.00	1.2566	35.0223	34.5130	.4850
	81.00	1.2641	37.0755	36.5632	.5105
	82.00	1.2718	39.1292	38.6137	.5357
	83.00	1.2797	41.1840	40.6654	.5606
	84.00	1.2878	43.2411	42.7191	.5853
	85.00	1.2960	45.3014	44.7761	.6096
	86.00	1.3045	47.3662	46.8375	.6338
	87.00	1.3132	49.4369	48.9046	.6577
	88.00	1.3222	51.5148	50.9789	.6815
	89.00	1.3313	53.6014	53.0618	.7050
	90.00	1.3408	55.6985	55.1551	.7285
	91.00	1.3505	57.8078	57.2604	.7518
*	91.413	1.3546	58.6838	58.1347	.7614
*	91.413	59.3860	237.162	213.093	2.7138
	92.00	59.9223	237.882	213.595	2.7217
	93.00	60.8307	239.102	214.448	2.7349
	94.00	61.7322	240.316	215.296	2.7478
	95.00	62.6271	241.523	216.140	2.7606
	96.00	63.5159	242.724	216.981	2.7732
	97.00	64.3990	243.919	217.818	2.7856
	98.00	65.2768	245.108	218.652	2.7978
	99.00	66.1494	246.293	219.483	2.8098
	100.00	67.0172	247.472	220.310	2.8217
	101.00	67.8805	248.647	221.135	2.8333
	102.00	68.7394	249.818	221.958	2.8449
	103.00	69.5943	250.984	222.778	2.8563
	104.00	70.4453	252.146	223.595	2.8675
	105.00	71.2927	253.305	224.410	2.8786
	106.00	72.1365	254.460	225.223	2.8895
	107.00	72.9770	255.612	226.034	2.9003
	108.00	73.8142	256.760	226.843	2.9110
	109.00	74.6485	257.905	227.650	2.9216
	110.00	75.4798	259.048	228.456	2.9320
	111.00	76.3083	260.187	229.259	2.9423
	112.00	77.1342	261.324	230.061	2.9525
	113.00	77.9575	262.458	230.862	2.9626
	114.00	78.7784	263.589	231.661	2.9726
	115.00	79.5969	264.718	232.458	2.9824
	116.00	80.4131	265.845	233.254	2.9922
	117.00	81.2272	266.970	234.048	3.0018
	118.00	82.0392	268.092	234.842	3.0114
	119.00	82.8492	269.212	235.634	3.0208
	120.00	83.6572	270.331	236.425	3.0302
	121.00	84.4634	271.447	237.214	3.0395
	122.00	85.2678	272.562	238.003	3.0486
	123.00	86.0705	273.674	238.790	3.0577
	124.00	86.8715	274.785	239.576	3.0667
	125.00	87.6709	275.895	240.362	3.0756
	126.00	88.4687	277.002	241.146	3.0845
	127.00	89.2650	278.108	241.929	3.0932
	128.00	90.0599	279.213	242.712	3.1019
	129.00	90.8534	280.316	243.493	3.1104
	130.00	91.6455	281.418	244.274	3.1189
	131.00	92.4363	282.518	245.054	3.1274
	132.00	93.2258	283.617	245.833	3.1357
	133.00	94.0140	284.715	246.611	3.1440
	134.00	94.8011	285.811	247.388	3.1522
	135.00	95.5871	286.906	248.165	3.1604
	136.00	96.3719	288.000	248.941	3.1685
	137.00	97.1556	289.093	249.716	3.1765
	138.00	97.9382	290.185	250.491	3.1844
	139.00	98.7199	291.276	251.265	3.1923
	140.00	99.5005	292.365	252.038	3.2001
	141.00	100.280	293.454	252.810	3.2078
	142.00	101.059	294.542	253.582	3.2155
	143.00	101.837	295.628	254.354	3.2231
	144.00	102.614	296.714	255.125	3.2307
	145.00	103.390	297.799	255.895	3.2382
	146.00	104.165	298.883	256.665	3.2457
	147.00	104.939	299.966	257.434	3.2531
	148.00	105.713	301.048	258.203	3.2604
	149.00	106.486	302.129	258.971	3.2677
	150.00	107.258	303.210	259.738	3.2749
	151.00	108.029	304.290	260.506	3.2821
	152.00	108.800	305.369	261.272	3.2892
	153.00	109.570	306.447	262.039	3.2963
	154.00	110.339	307.525	262.805	3.3033
	155.00	111.108	308.602	263.570	3.3103
	156.00	111.876	309.678	264.335	3.3172
	157.00	112.643	310.754	265.099	3.3241
	158.00	113.410	311.829	265.864	3.3309
	159.00	114.176	312.903	266.627	3.3377
	160.00	114.942	313.977	267.391	3.3444
	161.00	115.707	315.050	268.154	3.3511
	162.00	116.471	316.122	268.916	3.3577
	163.00	117.235	317.194	269.679	3.3643
	164.00	117.999	318.265	270.441	3.3709
	165.00	118.761	319.336	271.202	3.3774
	166.00	119.524	320.407	271.964	3.3839
	167.00	120.286	321.476	272.725	3.3903
	168.00	121.047	322.546	273.485	3.3967
	169.00	121.808	323.614	274.246	3.4030
	170.00	122.569	324.683	275.006	3.4093
	171.00	123.329	325.750	275.765	3.4156
	172.00	124.088	326.818	276.525	3.4218
	173.00	124.847	327.884	277.284	3.4280
	174.00	125.606	328.951	278.043	3.4341
	175.00	126.364	330.017	278.801	3.4402
	176.00	127.122	331.082	279.560	3.4463
	177.00	127.880	332.147	280.318	3.4523
	178.00	128.637	333.212	281.076	3.4583
	179.00	129.394	334.276	281.833	3.4643
	180.00	130.150	335.340	282.591	3.4702

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	130.906	336.404	283.348	3.4761	241.00	175.816	399.730	328.472	3.7784
182.00	131.662	337.467	284.105	3.4820	242.00	176.559	400.780	329.221	3.7827
183.00	132.417	338.530	284.861	3.4878	243.00	177.303	401.830	329.969	3.7871
184.00	133.172	339.592	285.618	3.4936	244.00	178.046	402.880	330.718	3.7914
185.00	133.927	340.654	286.374	3.4993	245.00	178.789	403.929	331.466	3.7957
186.00	134.681	341.716	287.130	3.5051	246.00	179.531	404.979	332.215	3.7999
187.00	135.436	342.777	287.886	3.5108	247.00	180.274	406.028	332.963	3.8042
188.00	136.189	343.839	288.641	3.5164	248.00	181.017	407.077	333.711	3.8084
189.00	136.943	344.899	289.396	3.5220	249.00	181.759	408.126	334.459	3.8127
190.00	137.696	345.960	290.152	3.5276	250.00	182.502	409.175	335.207	3.8169
191.00	138.449	347.020	290.907	3.5332	251.00	183.244	410.224	335.955	3.8210
192.00	139.201	348.080	291.661	3.5387	252.00	183.986	411.273	336.703	3.8252
193.00	139.954	349.139	292.416	3.5442	253.00	184.728	412.322	337.451	3.8294
194.00	140.706	350.198	293.170	3.5497	254.00	185.470	413.370	338.199	3.8335
195.00	141.457	351.257	293.925	3.5552	255.00	186.212	414.419	338.947	3.8376
196.00	142.209	352.316	294.679	3.5606	256.00	186.954	415.467	339.695	3.8417
197.00	142.960	353.374	295.433	3.5660	257.00	187.695	416.515	340.442	3.8458
198.00	143.711	354.432	296.186	3.5713	258.00	188.437	417.563	341.190	3.8499
199.00	144.462	355.490	296.940	3.5766	259.00	189.179	418.611	341.937	3.8539
200.00	145.212	356.548	297.693	3.5819	260.00	189.920	419.659	342.685	3.8580
201.00	145.962	357.605	298.446	3.5872	261.00	190.661	420.707	343.432	3.8620
202.00	146.712	358.662	299.199	3.5925	262.00	191.402	421.755	344.180	3.8660
203.00	147.462	359.719	299.952	3.5977	263.00	192.144	422.803	344.927	3.8700
204.00	148.212	360.775	300.705	3.6029	264.00	192.885	423.850	345.674	3.8740
205.00	148.961	361.832	301.458	3.6080	265.00	193.626	424.898	346.422	3.8779
206.00	149.710	362.888	302.210	3.6132	266.00	194.366	425.945	347.169	3.8819
207.00	150.459	363.943	302.962	3.6183	267.00	195.107	426.993	347.916	3.8858
208.00	151.208	364.999	303.715	3.6234	268.00	195.848	428.040	348.663	3.8897
209.00	151.956	366.054	304.467	3.6284	269.00	196.589	429.087	349.410	3.8936
210.00	152.704	367.110	305.219	3.6335	270.00	197.329	430.134	350.157	3.8975
211.00	153.452	368.165	305.970	3.6385	271.00	198.070	431.181	350.904	3.9014
212.00	154.200	369.219	306.722	3.6435	272.00	198.810	432.228	351.651	3.9052
213.00	154.948	370.274	307.474	3.6484	273.00	199.550	433.275	352.398	3.9091
214.00	155.695	371.328	308.225	3.6534	274.00	200.291	434.322	353.144	3.9129
215.00	156.443	372.382	308.976	3.6583	275.00	201.031	435.369	353.891	3.9167
216.00	157.190	373.436	309.727	3.6632	276.00	201.771	436.416	354.638	3.9205
217.00	157.937	374.490	310.478	3.6681	277.00	202.511	437.462	355.385	3.9243
218.00	158.684	375.544	311.229	3.6729	278.00	203.251	438.509	356.131	3.9281
219.00	159.430	376.597	311.980	3.6777	279.00	203.991	439.555	356.878	3.9318
220.00	160.177	377.650	312.731	3.6825	280.00	204.731	440.602	357.625	3.9356
221.00	160.923	378.703	313.481	3.6873	281.00	205.470	441.648	358.371	3.9393
222.00	161.669	379.756	314.232	3.6920	282.00	206.210	442.694	359.118	3.9430
223.00	162.415	380.809	314.982	3.6968	283.00	206.950	443.741	359.864	3.9467
224.00	163.161	381.861	315.732	3.7015	284.00	207.689	444.787	360.611	3.9504
225.00	163.906	382.914	316.483	3.7062	285.00	208.429	445.833	361.357	3.9541
226.00	164.652	383.966	317.233	3.7108	286.00	209.168	446.879	362.104	3.9578
227.00	165.397	385.018	317.983	3.7155	287.00	209.907	447.925	362.850	3.9614
228.00	166.142	386.070	318.732	3.7201	288.00	210.647	448.971	363.596	3.9650
229.00	166.887	387.121	319.482	3.7247	289.00	211.386	450.017	364.343	3.9687
230.00	167.632	388.173	320.232	3.7293	290.00	212.125	451.063	365.089	3.9723
231.00	168.377	389.224	320.981	3.7339	291.00	212.864	452.109	365.835	3.9759
232.00	169.121	390.276	321.731	3.7384	292.00	213.603	453.155	366.581	3.9795
233.00	169.866	391.327	322.480	3.7429	293.00	214.342	454.200	367.328	3.9830
234.00	170.610	392.378	323.230	3.7474	294.00	215.081	455.246	368.074	3.9866
235.00	171.354	393.428	323.979	3.7519	295.00	215.820	456.292	368.820	3.9902
236.00	172.098	394.479	324.728	3.7564	296.00	216.559	457.337	369.566	3.9937
237.00	172.842	395.530	325.477	3.7608	297.00	217.298	458.383	370.312	3.9972
238.00	173.586	396.580	326.226	3.7652	298.00	218.036	459.428	371.058	4.0007
239.00	174.329	397.630	326.975	3.7696	299.00	218.775	460.474	371.805	4.0042
240.00	175.073	398.680	327.724	3.7740	300.00	219.513	461.519	372.551	4.0077

5.00 ATMOSPHERE ISOBAR

	TEMPER-ATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1550	2.1445	1.5593	.0248
	65.00	1.1604	4.1960	3.6081	.0566
	66.00	1.1659	6.2522	5.6615	.0880
	67.00	1.1716	8.3119	7.7184	.1189
	68.00	1.1773	10.3742	9.7777	.1495
	69.00	1.1832	12.4380	11.8386	.1796
	70.00	1.1891	14.5026	13.9001	.2093
	71.00	1.1952	16.5671	15.9616	.2386
	72.00	1.2015	18.6312	18.0225	.2675
	73.00	1.2078	20.6941	20.0822	.2959
	74.00	1.2143	22.7555	22.1403	.3240
	75.00	1.2209	24.8153	24.1968	.3516
	76.00	1.2277	26.8733	26.2513	.3789
	77.00	1.2346	28.9294	28.3039	.4058
	78.00	1.2416	30.9839	30.3549	.4323
	79.00	1.2488	33.0371	32.4044	.4584
	80.00	1.2562	35.0893	34.4529	.4843
	81.00	1.2637	37.1412	36.5010	.5097
	82.00	1.2714	39.1933	38.5492	.5349
	83.00	1.2792	41.2467	40.5986	.5598
	84.00	1.2873	43.3021	42.6499	.5844
	85.00	1.2955	45.3607	44.7044	.6088
	86.00	1.3040	47.4237	46.7630	.6329
	87.00	1.3126	49.4923	48.8273	.6568
	88.00	1.3215	51.5681	50.8986	.6806
	89.00	1.3307	53.6525	52.9783	.7041
	90.00	1.3401	55.7471	55.0682	.7275
	91.00	1.3498	57.8537	57.1698	.7508
	92.00	1.3598	59.9741	59.2852	.7740
	93.00	1.3701	62.1102	61.4161	.7971
	94.00	1.3807	64.2641	63.5646	.8201
*	94.183	1.3827	64.6612	63.9606	.8243
*	94.183	47.8877	238.162	213.901	2.6665
	95.00	48.5116	239.202	214.625	2.6775
	96.00	49.2687	240.467	215.506	2.6907
	97.00	50.0188	241.722	216.381	2.7037
	98.00	50.7622	242.969	217.251	2.7165
	99.00	51.4996	244.207	218.116	2.7291
	100.00	52.2311	245.438	218.976	2.7414
	101.00	52.9573	246.662	219.832	2.7536
	102.00	53.6785	247.879	220.684	2.7656
	103.00	54.3949	249.090	221.532	2.7774
	104.00	55.1067	250.295	222.376	2.7891
	105.00	55.8144	251.494	223.217	2.8005
	106.00	56.5180	252.688	224.055	2.8119
	107.00	57.2178	253.877	224.890	2.8230
	108.00	57.9140	255.062	225.721	2.8341
	109.00	58.6068	256.242	226.550	2.8449
	110.00	59.2963	257.418	227.377	2.8557
	111.00	59.9827	258.589	228.200	2.8663
	112.00	60.6662	259.757	229.022	2.8767
	113.00	61.3468	260.921	229.841	2.8871
	114.00	62.0247	262.081	230.658	2.8973
	115.00	62.7001	263.238	231.473	2.9074
	116.00	63.3729	264.392	232.286	2.9174
	117.00	64.0434	265.543	233.097	2.9273
	118.00	64.7117	266.691	233.906	2.9371
	119.00	65.3777	267.836	234.714	2.9467
	120.00	66.0417	268.978	235.519	2.9563
	121.00	66.7037	270.117	236.324	2.9657
	122.00	67.3638	271.254	237.126	2.9751
	123.00	68.0219	272.389	237.927	2.9843
	124.00	68.6784	273.521	238.727	2.9935
	125.00	69.3330	274.651	239.525	3.0026
	126.00	69.9861	275.779	240.322	3.0116
	127.00	70.6375	276.904	241.117	3.0205
	128.00	71.2874	278.028	241.912	3.0293
	129.00	71.9358	279.149	242.705	3.0380
	130.00	72.5828	280.269	243.497	3.0467
	131.00	73.2284	281.387	244.288	3.0552
	132.00	73.8726	282.503	245.077	3.0637
	133.00	74.5156	283.617	245.866	3.0721
	134.00	75.1573	284.730	246.654	3.0805
	135.00	75.7978	285.841	247.440	3.0887
	136.00	76.4371	286.951	248.226	3.0969
	137.00	77.0752	288.059	249.011	3.1050
	138.00	77.7123	289.165	249.794	3.1131
	139.00	78.3483	290.271	250.577	3.1211
	140.00	78.9833	291.374	251.359	3.1290
	141.00	79.6172	292.477	252.141	3.1368
	142.00	80.2502	293.578	252.921	3.1446
	143.00	80.8822	294.678	253.701	3.1523
	144.00	81.5133	295.776	254.480	3.1600
	145.00	82.1436	296.874	255.258	3.1676
	146.00	82.7729	297.970	256.036	3.1751
	147.00	83.4014	299.066	256.812	3.1826
	148.00	84.0291	300.160	257.588	3.1900
	149.00	84.6560	301.253	258.364	3.1974
	150.00	85.2821	302.345	259.139	3.2047
	151.00	85.9075	303.436	259.913	3.2119
	152.00	86.5321	304.526	260.686	3.2191
	153.00	87.1561	305.615	261.459	3.2262
	154.00	87.7793	306.703	262.232	3.2333
	155.00	88.4018	307.790	263.004	3.2404
	156.00	89.0237	308.877	263.775	3.2474
	157.00	89.6450	309.962	264.546	3.2543
	158.00	90.2656	311.047	265.316	3.2612
	159.00	90.8856	312.131	266.086	3.2680
	160.00	91.5050	313.214	266.855	3.2748
	161.00	92.1239	314.296	267.624	3.2816
	162.00	92.7422	315.377	268.392	3.2883
	163.00	93.3599	316.458	269.160	3.2949
	164.00	93.9771	317.538	269.927	3.3015
	165.00	94.5937	318.618	270.694	3.3081
	166.00	95.2099	319.696	271.461	3.3146
	167.00	95.8255	320.774	272.227	3.3211
	168.00	96.4407	321.852	272.993	3.3275
	169.00	97.0554	322.928	273.758	3.3339
	170.00	97.6696	324.005	274.523	3.3402
	171.00	98.2833	325.080	275.287	3.3465
	172.00	98.8966	326.155	276.051	3.3528
	173.00	99.5095	327.229	276.815	3.3590
	174.00	100.122	328.303	277.579	3.3652
	175.00	100.734	329.376	278.342	3.3714
	176.00	101.346	330.449	279.105	3.3775
	177.00	101.957	331.521	279.867	3.3836
	178.00	102.568	332.592	280.629	3.3896
	179.00	103.178	333.663	281.391	3.3956
	180.00	103.788	334.734	282.152	3.4016

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	104.398	335.804	282.914	3.4075	241.00	140.523	399.393	328.201	3.7110
182.00	105.007	336.874	283.674	3.4134	242.00	141.120	400.446	328.951	3.7154
183.00	105.616	337.943	284.435	3.4192	243.00	141.717	401.499	329.702	3.7197
184.00	106.225	339.011	285.195	3.4251	244.00	142.313	402.551	330.452	3.7241
185.00	106.833	340.080	285.955	3.4309	245.00	142.910	403.604	331.202	3.7284
186.00	107.442	341.147	286.715	3.4366	246.00	143.506	404.656	331.952	3.7326
187.00	108.049	342.215	287.474	3.4423	247.00	144.103	405.708	332.702	3.7369
188.00	108.657	343.282	288.234	3.4480	248.00	144.699	406.760	333.452	3.7412
189.00	109.264	344.348	288.993	3.4537	249.00	145.295	407.811	334.202	3.7454
190.00	109.870	345.414	289.751	3.4593	250.00	145.891	408.863	334.951	3.7496
191.00	110.477	346.480	290.510	3.4649	251.00	146.487	409.915	335.701	3.7538
192.00	111.083	347.545	291.268	3.4705	252.00	147.082	410.966	336.451	3.7580
193.00	111.689	348.610	292.026	3.4760	253.00	147.678	412.017	337.200	3.7622
194.00	112.295	349.675	292.784	3.4815	254.00	148.273	413.068	337.949	3.7663
195.00	112.900	350.739	293.541	3.4870	255.00	148.869	414.119	338.699	3.7704
196.00	113.505	351.803	294.299	3.4924	256.00	149.464	415.170	339.448	3.7745
197.00	114.110	352.866	295.056	3.4978	257.00	150.059	416.221	340.197	3.7786
198.00	114.715	353.930	295.812	3.5032	258.00	150.655	417.271	340.946	3.7827
199.00	115.319	354.992	296.569	3.5086	259.00	151.250	418.322	341.695	3.7868
200.00	115.923	356.055	297.326	3.5139	260.00	151.845	419.372	342.444	3.7908
201.00	116.527	357.117	298.082	3.5192	261.00	152.439	420.423	343.193	3.7949
202.00	117.130	358.179	298.838	3.5245	262.00	153.034	421.473	343.942	3.7989
203.00	117.734	359.240	299.594	3.5297	263.00	153.629	422.523	344.691	3.8029
204.00	118.337	360.302	300.349	3.5349	264.00	154.223	423.573	345.439	3.8069
205.00	118.940	361.362	301.105	3.5401	265.00	154.818	424.623	346.188	3.8108
206.00	119.542	362.423	301.860	3.5453	266.00	155.412	425.672	346.937	3.8148
207.00	120.145	363.483	302.615	3.5504	267.00	156.007	426.722	347.685	3.8187
208.00	120.747	364.543	303.370	3.5555	268.00	156.601	427.771	348.433	3.8226
209.00	121.349	365.603	304.125	3.5606	269.00	157.195	428.821	349.182	3.8266
210.00	121.951	366.663	304.879	3.5656	270.00	157.789	429.870	349.930	3.8304
211.00	122.553	367.722	305.634	3.5707	271.00	158.383	430.919	350.678	3.8343
212.00	123.154	368.781	306.388	3.5757	272.00	158.977	431.968	351.427	3.8382
213.00	123.755	369.839	307.142	3.5807	273.00	159.571	433.017	352.175	3.8420
214.00	124.356	370.898	307.896	3.5856	274.00	160.165	434.066	352.923	3.8459
215.00	124.957	371.956	308.650	3.5906	275.00	160.759	435.115	353.671	3.8497
216.00	125.558	373.014	309.403	3.5955	276.00	161.352	436.164	354.419	3.8535
217.00	126.158	374.072	310.157	3.6004	277.00	161.946	437.213	355.167	3.8573
218.00	126.759	375.129	310.910	3.6052	278.00	162.539	438.261	355.915	3.8611
219.00	127.359	376.186	311.663	3.6101	279.00	163.133	439.310	356.663	3.8648
220.00	127.959	377.243	312.416	3.6149	280.00	163.726	440.358	357.410	3.8686
221.00	128.559	378.300	313.169	3.6197	281.00	164.319	441.406	358.158	3.8723
222.00	129.158	379.357	313.922	3.6244	282.00	164.913	442.455	358.906	3.8760
223.00	129.758	380.413	314.675	3.6292	283.00	165.506	443.503	359.654	3.8798
224.00	130.357	381.469	315.427	3.6339	284.00	166.099	444.551	360.401	3.8835
225.00	130.956	382.525	316.179	3.6386	285.00	166.692	445.599	361.149	3.8871
226.00	131.555	383.581	316.932	3.6433	286.00	167.285	446.647	361.896	3.8908
227.00	132.154	384.636	317.684	3.6479	287.00	167.878	447.695	362.644	3.8945
228.00	132.753	385.691	318.436	3.6526	288.00	168.471	448.743	363.391	3.8981
229.00	133.351	386.746	319.187	3.6572	289.00	169.063	449.790	364.139	3.9017
230.00	133.950	387.801	319.939	3.6618	290.00	169.656	450.838	364.886	3.9054
231.00	134.548	388.856	320.691	3.6664	291.00	170.249	451.886	365.633	3.9090
232.00	135.146	389.911	321.442	3.6709	292.00	170.841	452.933	366.381	3.9126
233.00	135.744	390.965	322.194	3.6755	293.00	171.434	453.981	367.128	3.9161
234.00	136.342	392.019	322.945	3.6800	294.00	172.026	455.028	367.875	3.9197
235.00	136.940	393.073	323.696	3.6845	295.00	172.619	456.075	368.623	3.9233
236.00	137.537	394.127	324.447	3.6889	296.00	173.211	457.123	369.370	3.9268
237.00	138.135	395.180	325.198	3.6934	297.00	173.803	458.170	370.117	3.9303
238.00	138.732	396.234	325.949	3.6978	298.00	174.396	459.217	370.864	3.9339
239.00	139.329	397.287	326.700	3.7023	299.00	174.988	460.264	371.611	3.9374
240.00	139.926	398.340	327.450	3.7067	300.00	175.580	461.311	372.358	3.9409

6.00 ATMOSPHERE ISOBAR

	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1548	2.2270	1.5249	.0242
	65.00	1.1602	4.2778	3.5724	.0560
	66.00	1.1657	6.3332	5.6245	.0874
	67.00	1.1713	8.3921	7.6800	.1184
	68.00	1.1771	10.4535	9.7379	.1489
	69.00	1.1829	12.5165	11.7974	.1790
	70.00	1.1889	14.5802	13.8574	.2087
	71.00	1.1950	16.6439	15.9174	.2380
	72.00	1.2012	18.7070	17.9768	.2668
	73.00	1.2075	20.7690	20.0349	.2953
	74.00	1.2140	22.8295	22.0914	.3233
	75.00	1.2206	24.8882	24.1462	.3510
	76.00	1.2273	26.9451	26.1990	.3782
	77.00	1.2342	29.0002	28.2498	.4051
	78.00	1.2412	31.0535	30.2989	.4316
	79.00	1.2484	33.1055	32.3465	.4577
	80.00	1.2558	35.1564	34.3930	.4835
	81.00	1.2632	37.2069	36.4389	.5090
	82.00	1.2709	39.2577	38.4850	.5341
	83.00	1.2787	41.3095	40.5321	.5590
	84.00	1.2868	43.3633	42.5810	.5836
	85.00	1.2950	45.4202	44.6329	.6079
	86.00	1.3034	47.4813	46.6889	.6320
	87.00	1.3121	49.5480	48.7503	.6559
	88.00	1.3209	51.6216	50.8186	.6796
	89.00	1.3300	53.7038	52.8952	.7032
	90.00	1.3394	55.7959	54.9816	.7265
	91.00	1.3491	57.8999	57.0798	.7498
	92.00	1.3590	60.0175	59.1913	.7729
	93.00	1.3693	62.1505	61.3181	.7960
	94.00	1.3799	64.3010	63.4622	.8190
	95.00	1.3908	66.4711	65.6256	.8420
	96.00	1.4022	68.6630	67.8105	.8649
*	96.574	1.4089	69.9316	69.0751	.8781
*	96.574	40.0670	238.802	214.444	2.6267
	97.00	40.3510	239.367	214.836	2.6325
	98.00	41.0118	240.684	215.751	2.6460
	99.00	41.6650	241.988	216.657	2.6593
	100.00	42.3112	243.280	217.557	2.6723
	101.00	42.9509	244.562	218.450	2.6850
	102.00	43.5846	245.834	219.337	2.6976
	103.00	44.2126	247.097	220.218	2.7099
	104.00	44.8354	248.352	221.094	2.7220
	105.00	45.4532	249.598	221.965	2.7339
	106.00	46.0663	250.837	222.831	2.7457
	107.00	46.6751	252.069	223.693	2.7572
	108.00	47.2798	253.295	224.551	2.7686
	109.00	47.8805	254.514	225.405	2.7799
	110.00	48.4776	255.727	226.255	2.7910
	111.00	49.0712	256.934	227.102	2.8019
	112.00	49.6615	258.137	227.945	2.8127
	113.00	50.2487	259.334	228.785	2.8233
	114.00	50.8328	260.526	229.622	2.8338
	115.00	51.4142	261.714	230.457	2.8442
	116.00	51.9928	262.897	231.288	2.8544
	117.00	52.5688	264.077	232.117	2.8646
	118.00	53.1423	265.252	232.944	2.8746
	119.00	53.7135	266.423	233.768	2.8844
	120.00	54.2824	267.591	234.590	2.8942
	121.00	54.8492	268.756	235.410	2.9039
	122.00	55.4138	269.917	236.228	2.9134
	123.00	55.9765	271.075	237.044	2.9229
	124.00	56.5373	272.230	237.858	2.9322
	125.00	57.0962	273.381	238.670	2.9415
	126.00	57.6534	274.531	239.480	2.9507
	127.00	58.2088	275.677	240.289	2.9597
	128.00	58.7627	276.821	241.096	2.9687
	129.00	59.3149	277.962	241.901	2.9776
	130.00	59.8657	279.101	242.705	2.9864
	131.00	60.4149	280.237	243.508	2.9951
	132.00	60.9628	281.371	244.309	3.0037
	133.00	61.5093	282.503	245.108	3.0122
	134.00	62.0544	283.633	245.907	3.0207
	135.00	62.5983	284.761	246.704	3.0291
	136.00	63.1410	285.886	247.500	3.0374
	137.00	63.6825	287.010	248.295	3.0456
	138.00	64.2228	288.132	249.088	3.0538
	139.00	64.7620	289.253	249.881	3.0619
	140.00	65.3001	290.371	250.672	3.0699
	141.00	65.8372	291.488	251.462	3.0778
	142.00	66.3733	292.603	252.251	3.0857
	143.00	66.9084	293.717	253.040	3.0935
	144.00	67.4425	294.829	253.827	3.1013
	145.00	67.9757	295.939	254.614	3.1090
	146.00	68.5080	297.048	255.399	3.1166
	147.00	69.0394	298.156	256.184	3.1242
	148.00	69.5700	299.263	256.968	3.1317
	149.00	70.0998	300.368	257.751	3.1391
	150.00	70.6288	301.471	258.533	3.1465
	151.00	71.1570	302.574	259.314	3.1538
	152.00	71.6844	303.675	260.095	3.1611
	153.00	72.2111	304.775	260.875	3.1683
	154.00	72.7371	305.874	261.654	3.1754
	155.00	73.2624	306.972	262.432	3.1826
	156.00	73.7870	308.069	263.210	3.1896
	157.00	74.3110	309.165	263.987	3.1966
	158.00	74.8343	310.259	264.764	3.2036
	159.00	75.3570	311.353	265.540	3.2105
	160.00	75.8791	312.446	266.315	3.2173
	161.00	76.4006	313.537	267.090	3.2241
	162.00	76.9215	314.628	267.864	3.2309
	163.00	77.4419	315.718	268.637	3.2376
	164.00	77.9617	316.807	269.410	3.2442
	165.00	78.4809	317.895	270.183	3.2508
	166.00	78.9997	318.982	270.954	3.2574
	167.00	79.5179	320.069	271.726	3.2639
	168.00	80.0356	321.154	272.497	3.2704
	169.00	80.5529	322.239	273.267	3.2769
	170.00	81.0696	323.323	274.037	3.2833
	171.00	81.5859	324.406	274.806	3.2896
	172.00	82.1018	325.489	275.575	3.2959
	173.00	82.6172	326.571	276.344	3.3022
	174.00	83.1322	327.652	277.112	3.3084
	175.00	83.6468	328.733	277.880	3.3146
	176.00	84.1609	329.812	278.647	3.3208
	177.00	84.6746	330.892	279.414	3.3269
	178.00	85.1880	331.970	280.180	3.3330
	179.00	85.7009	333.048	280.946	3.3390
	180.00	86.2135	334.125	281.712	3.3450

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	86.7257	335.202	282.477	3.3510	241.00	116.995	399.056	327.929	3.6558
182.00	87.2376	336.278	283.242	3.3569	242.00	117.495	400.112	328.681	3.6602
183.00	87.7491	337.354	284.007	3.3628	243.00	117.994	401.167	329.433	3.6645
184.00	88.2602	338.429	284.771	3.3686	244.00	118.493	402.223	330.185	3.6689
185.00	88.7711	339.503	285.535	3.3745	245.00	118.991	403.278	330.937	3.6732
186.00	89.2815	340.577	286.298	3.3803	246.00	119.490	404.333	331.689	3.6775
187.00	89.7917	341.650	287.062	3.3860	247.00	119.989	405.388	332.441	3.6817
188.00	90.3015	342.723	287.825	3.3917	248.00	120.487	406.442	333.192	3.6860
189.00	90.8111	343.796	288.587	3.3974	249.00	120.986	407.497	333.944	3.6903
190.00	91.3203	344.868	289.349	3.4031	250.00	121.484	408.551	334.695	3.6945
191.00	91.8292	345.939	290.111	3.4087	251.00	121.982	409.605	335.446	3.6987
192.00	92.3378	347.010	290.873	3.4143	252.00	122.480	410.659	336.197	3.7029
193.00	92.8462	348.080	291.635	3.4199	253.00	122.978	411.713	336.949	3.7071
194.00	93.3542	349.150	292.396	3.4254	254.00	123.476	412.767	337.700	3.7112
195.00	93.8620	350.220	293.157	3.4309	255.00	123.974	413.820	338.450	3.7153
196.00	94.3696	351.289	293.917	3.4364	256.00	124.472	414.874	339.201	3.7195
197.00	94.8768	352.358	294.677	3.4418	257.00	124.969	415.927	339.952	3.7236
198.00	95.3838	353.426	295.437	3.4472	258.00	125.467	416.980	340.702	3.7277
199.00	95.8905	354.494	296.197	3.4526	259.00	125.964	418.033	341.453	3.7317
200.00	96.3970	355.561	296.957	3.4579	260.00	126.462	419.086	342.203	3.7358
201.00	96.9033	356.628	297.716	3.4633	261.00	126.959	420.138	342.954	3.7398
202.00	97.4093	357.695	298.475	3.4686	262.00	127.456	421.191	343.704	3.7439
203.00	97.9151	358.761	299.234	3.4738	263.00	127.953	422.243	344.454	3.7479
204.00	98.4206	359.827	299.992	3.4791	264.00	128.450	423.295	345.204	3.7519
205.00	98.9259	360.893	300.751	3.4843	265.00	128.947	424.347	345.954	3.7558
206.00	99.4310	361.958	301.509	3.4895	266.00	129.444	425.399	346.704	3.7598
207.00	99.9359	363.023	302.267	3.4946	267.00	129.940	426.451	347.454	3.7637
208.00	100.441	364.087	303.024	3.4997	268.00	130.437	427.503	348.204	3.7677
209.00	100.945	365.151	303.782	3.5048	269.00	130.933	428.555	348.954	3.7716
210.00	101.449	366.215	304.539	3.5099	270.00	131.430	429.606	349.703	3.7755
211.00	101.953	367.279	305.296	3.5150	271.00	131.926	430.657	350.453	3.7794
212.00	102.457	368.342	306.053	3.5200	272.00	132.423	431.709	351.202	3.7833
213.00	102.961	369.405	306.810	3.5250	273.00	132.919	432.760	351.952	3.7871
214.00	103.464	370.467	307.566	3.5300	274.00	133.415	433.811	352.701	3.7910
215.00	103.967	371.529	308.322	3.5349	275.00	133.911	434.862	353.451	3.7948
216.00	104.471	372.591	309.079	3.5399	276.00	134.407	435.912	354.200	3.7986
217.00	104.973	373.653	309.834	3.5448	277.00	134.903	436.963	354.949	3.8024
218.00	105.476	374.714	310.590	3.5496	278.00	135.399	438.014	355.698	3.8062
219.00	105.979	375.775	311.346	3.5545	279.00	135.895	439.064	356.447	3.8100
220.00	106.481	376.836	312.101	3.5593	280.00	136.390	440.115	357.196	3.8137
221.00	106.983	377.897	312.856	3.5641	281.00	136.886	441.165	357.945	3.8175
222.00	107.485	378.957	313.611	3.5689	282.00	137.382	442.215	358.694	3.8212
223.00	107.987	380.017	314.366	3.5737	283.00	137.877	443.265	359.443	3.8249
224.00	108.489	381.077	315.121	3.5784	284.00	138.373	444.315	360.192	3.8286
225.00	108.990	382.136	315.876	3.5831	285.00	138.868	445.365	360.940	3.8323
226.00	109.492	383.195	316.630	3.5878	286.00	139.363	446.415	361.689	3.8360
227.00	109.993	384.254	317.384	3.5925	287.00	139.859	447.465	362.438	3.8396
228.00	110.494	385.313	318.138	3.5972	288.00	140.354	448.514	363.186	3.8433
229.00	110.995	386.371	318.892	3.6018	289.00	140.849	449.564	363.935	3.8469
230.00	111.496	387.430	319.646	3.6064	290.00	141.344	450.613	364.683	3.8506
231.00	111.996	388.488	320.400	3.6110	291.00	141.839	451.663	365.432	3.8542
232.00	112.497	389.546	321.153	3.6156	292.00	142.334	452.712	366.180	3.8578
233.00	112.997	390.603	321.907	3.6201	293.00	142.829	453.761	366.928	3.8614
234.00	113.497	391.660	322.660	3.6247	294.00	143.324	454.810	367.677	3.8649
235.00	113.998	392.718	323.413	3.6292	295.00	143.818	455.859	368.425	3.8685
236.00	114.498	393.775	324.166	3.6337	296.00	144.313	456.908	369.173	3.8720
237.00	114.997	394.831	324.919	3.6381	297.00	144.808	457.957	369.922	3.8756
238.00	115.497	395.888	325.671	3.6426	298.00	145.302	459.006	370.670	3.8791
239.00	115.997	396.944	326.424	3.6470	299.00	145.797	460.055	371.418	3.8826
240.00	116.496	398.000	327.177	3.6514	300.00	146.291	461.104	372.166	3.8861

7.00 ATMOSPHERE ISOBAR

	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
	64.00	1.1546	2.3096	1.4906	.0237
	65.00	1.1600	4.3595	3.5368	.0555
	66.00	1.1655	6.4142	5.5875	.0868
	67.00	1.1711	8.4723	7.6417	.1178
	68.00	1.1768	10.5329	9.6982	.1483
	69.00	1.1827	12.5951	11.7562	.1784
	70.00	1.1886	14.6579	13.8149	.2081
	71.00	1.1947	16.7208	15.8734	.2374
	72.00	1.2009	18.7830	17.9312	.2662
	73.00	1.2072	20.8440	19.9877	.2946
	74.00	1.2137	22.9035	22.0427	.3227
	75.00	1.2203	24.9613	24.0958	.3503
	76.00	1.2270	27.0171	26.1468	.3775
	77.00	1.2339	29.0711	28.1959	.4044
	78.00	1.2409	31.1233	30.2431	.4308
	79.00	1.2480	33.1740	32.2888	.4570
	80.00	1.2553	35.2236	34.3333	.4827
	81.00	1.2628	37.2728	36.3771	.5082
	82.00	1.2705	39.3221	38.4210	.5333
	83.00	1.2783	41.3724	40.4658	.5582
	84.00	1.2863	43.4246	42.5123	.5828
	85.00	1.2945	45.4798	44.5617	.6071
	86.00	1.3029	47.5391	46.6150	.6312
	87.00	1.3115	49.6039	48.6737	.6551
	88.00	1.3203	51.6754	50.7390	.6787
	89.00	1.3294	53.7553	52.8124	.7022
	90.00	1.3387	55.8451	54.8956	.7256
	91.00	1.3483	57.9465	56.9901	.7488
	92.00	1.3582	60.0613	59.0979	.7719
	93.00	1.3685	62.1913	61.2206	.7949
	94.00	1.3790	64.3385	63.3604	.8179
	95.00	1.3899	66.5049	65.5191	.8408
	96.00	1.4012	68.6928	67.6990	.8637
	97.00	1.4129	70.9044	69.9023	.8867
	98.00	1.4251	73.1422	72.1314	.9096
*	98.690	1.4338	74.7035	73.6866	.9255
*	98.690	34.3851	239.179	214.791	2.5921
	99.00	34.5701	239.607	215.087	2.5964
	100.00	35.1616	240.975	216.036	2.6101
	101.00	35.7451	242.328	216.975	2.6236
	102.00	36.3212	243.666	217.904	2.6368
	103.00	36.8905	244.991	218.825	2.6497
	104.00	37.4536	246.304	219.739	2.6624
	105.00	38.0107	247.605	220.645	2.6749
	106.00	38.5625	248.896	221.545	2.6871
	107.00	39.1091	250.178	222.438	2.6991
	108.00	39.6510	251.450	223.326	2.7110
	109.00	40.1884	252.713	224.208	2.7226
	110.00	40.7217	253.969	225.086	2.7341
	111.00	41.2510	255.216	225.958	2.7454
	112.00	41.7765	256.457	226.826	2.7565
	113.00	42.2986	257.691	227.690	2.7675
	114.00	42.8173	258.919	228.550	2.7783
	115.00	43.3329	260.141	229.406	2.7889
	116.00	43.8454	261.357	230.258	2.7995
	117.00	44.3551	262.567	231.107	2.8099
	118.00	44.8621	263.773	231.953	2.8201
	119.00	45.3666	264.973	232.796	2.8303
	120.00	45.8685	266.169	233.636	2.8403
	121.00	46.3681	267.360	234.473	2.8502
	122.00	46.8655	268.547	235.307	2.8599
	123.00	47.3607	269.731	236.139	2.8696
	124.00	47.8539	270.910	236.968	2.8791
	125.00	48.3451	272.085	237.795	2.8886
	126.00	48.8344	273.257	238.620	2.8979
	127.00	49.3219	274.425	239.443	2.9071
	128.00	49.8076	275.590	240.263	2.9163
	129.00	50.2917	276.752	241.082	2.9253
	130.00	50.7742	277.911	241.898	2.9343
	131.00	51.2551	279.067	242.713	2.9431
	132.00	51.7345	280.220	243.526	2.9519
	133.00	52.2125	281.371	244.338	2.9606
	134.00	52.6891	282.519	245.148	2.9692
	135.00	53.1643	283.664	245.956	2.9777
	136.00	53.6383	284.807	246.762	2.9861
	137.00	54.1110	285.947	247.567	2.9945
	138.00	54.5825	287.085	248.371	3.0028
	139.00	55.0529	288.221	249.174	3.0110
	140.00	55.5221	289.355	249.975	3.0191
	141.00	55.9902	290.487	250.774	3.0271
	142.00	56.4573	291.617	251.573	3.0351
	143.00	56.9234	292.744	252.370	3.0430
	144.00	57.3884	293.870	253.166	3.0509
	145.00	57.8525	294.995	253.961	3.0587
	146.00	58.3157	296.117	254.755	3.0664
	147.00	58.7780	297.238	255.548	3.0740
	148.00	59.2394	298.357	256.340	3.0816
	149.00	59.6999	299.474	257.131	3.0891
	150.00	60.1597	300.590	257.920	3.0966
	151.00	60.6186	301.704	258.709	3.1040
	152.00	61.0768	302.817	259.497	3.1114
	153.00	61.5341	303.929	260.284	3.1187
	154.00	61.9908	305.039	261.070	3.1259
	155.00	62.4468	306.148	261.856	3.1331
	156.00	62.9020	307.255	262.640	3.1402
	157.00	63.3566	308.361	263.424	3.1472
	158.00	63.8105	309.466	264.207	3.1543
	159.00	64.2638	310.570	264.989	3.1612
	160.00	64.7164	311.672	265.770	3.1681
	161.00	65.1685	312.773	266.551	3.1750
	162.00	65.6199	313.874	267.331	3.1818
	163.00	66.0708	314.973	268.111	3.1886
	164.00	66.5211	316.071	268.889	3.1953
	165.00	66.9709	317.168	269.667	3.2020
	166.00	67.4201	318.264	270.445	3.2086
	167.00	67.8688	319.359	271.221	3.2152
	168.00	68.3170	320.453	271.997	3.2217
	169.00	68.7647	321.546	272.773	3.2282
	170.00	69.2120	322.638	273.548	3.2346
	171.00	69.6587	323.730	274.323	3.2410
	172.00	70.1050	324.820	275.096	3.2474
	173.00	70.5509	325.910	275.870	3.2537
	174.00	70.9963	326.998	276.643	3.2600
	175.00	71.4412	328.086	277.415	3.2662
	176.00	71.8858	329.174	278.187	3.2724
	177.00	72.3299	330.260	278.958	3.2786
	178.00	72.7737	331.345	279.729	3.2847
	179.00	73.2170	332.430	280.499	3.2908
	180.00	73.6600	333.515	281.269	3.2968

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	74.1026	334.598	282.039	3.3028	241.00	100.190	398.719	327.657	3.6089
182.00	74.5448	335.681	282.808	3.3088	242.00	100.620	399.778	328.411	3.6133
183.00	74.9867	336.763	283.577	3.3147	243.00	101.049	400.836	329.165	3.6177
184.00	75.4282	337.844	284.345	3.3206	244.00	101.478	401.894	329.918	3.6220
185.00	75.8694	338.925	285.113	3.3264	245.00	101.907	402.952	330.672	3.6263
186.00	76.3102	340.005	285.880	3.3323	246.00	102.336	404.010	331.426	3.6307
187.00	76.7507	341.084	286.647	3.3381	247.00	102.765	405.068	332.179	3.6349
188.00	77.1909	342.163	287.414	3.3438	248.00	103.194	406.125	332.932	3.6392
189.00	77.6308	343.242	288.180	3.3495	249.00	103.623	407.182	333.685	3.6435
190.00	78.0703	344.319	288.946	3.3552	250.00	104.051	408.239	334.438	3.6477
191.00	78.5096	345.396	289.712	3.3609	251.00	104.480	409.296	335.191	3.6519
192.00	78.9486	346.473	290.477	3.3665	252.00	104.908	410.353	335.944	3.6561
193.00	79.3873	347.549	291.242	3.3721	253.00	105.336	411.409	336.697	3.6603
194.00	79.8256	348.625	292.006	3.3776	254.00	105.765	412.465	337.449	3.6645
195.00	80.2638	349.699	292.770	3.3832	255.00	106.193	413.521	338.202	3.6686
196.00	80.7016	350.774	293.534	3.3887	256.00	106.621	414.577	338.954	3.6728
197.00	81.1392	351.848	294.298	3.3941	257.00	107.048	415.633	339.706	3.6769
198.00	81.5765	352.921	295.061	3.3996	258.00	107.476	416.689	340.458	3.6810
199.00	82.0135	353.994	295.824	3.4050	259.00	107.904	417.744	341.210	3.6851
200.00	82.4503	355.067	296.587	3.4103	260.00	108.331	418.799	341.962	3.6891
201.00	82.8869	356.139	297.349	3.4157	261.00	108.759	419.854	342.714	3.6932
202.00	83.3232	357.210	298.111	3.4210	262.00	109.186	420.909	343.466	3.6972
203.00	83.7593	358.281	298.873	3.4263	263.00	109.614	421.964	344.218	3.7012
204.00	84.1951	359.352	299.635	3.4316	264.00	110.041	423.018	344.969	3.7052
205.00	84.6307	360.422	300.396	3.4368	265.00	110.468	424.073	345.721	3.7092
206.00	85.0661	361.492	301.157	3.4420	266.00	110.895	425.127	346.472	3.7132
207.00	85.5013	362.561	301.918	3.4472	267.00	111.322	426.181	347.223	3.7171
208.00	85.9363	363.630	302.678	3.4523	268.00	111.749	427.235	347.974	3.7211
209.00	86.3710	364.699	303.438	3.4575	269.00	112.176	428.289	348.725	3.7250
210.00	86.8055	365.767	304.198	3.4625	270.00	112.602	429.342	349.476	3.7289
211.00	87.2399	366.835	304.958	3.4676	271.00	113.029	430.396	350.227	3.7328
212.00	87.6740	367.902	305.717	3.4727	272.00	113.456	431.449	350.978	3.7367
213.00	88.1079	368.969	306.477	3.4777	273.00	113.882	432.502	351.729	3.7406
214.00	88.5416	370.036	307.236	3.4827	274.00	114.309	433.555	352.479	3.7444
215.00	88.9752	371.102	307.995	3.4877	275.00	114.735	434.608	353.230	3.7482
216.00	89.4085	372.168	308.753	3.4926	276.00	115.161	435.661	353.981	3.7521
217.00	89.8417	373.234	309.511	3.4975	277.00	115.587	436.714	354.731	3.7559
218.00	90.2747	374.299	310.270	3.5024	278.00	116.013	437.767	355.481	3.7597
219.00	90.7075	375.364	311.028	3.5073	279.00	116.439	438.819	356.232	3.7634
220.00	91.1402	376.429	311.785	3.5121	280.00	116.865	439.871	356.982	3.7672
221.00	91.5726	377.493	312.543	3.5170	281.00	117.291	440.924	357.732	3.7710
222.00	92.0050	378.557	313.300	3.5218	282.00	117.717	441.976	358.482	3.7747
223.00	92.4371	379.621	314.057	3.5266	283.00	118.143	443.028	359.232	3.7784
224.00	92.8691	380.684	314.814	3.5313	284.00	118.569	444.080	359.982	3.7821
225.00	93.3009	381.747	315.571	3.5361	285.00	118.994	445.131	360.732	3.7858
226.00	93.7325	382.810	316.328	3.5408	286.00	119.420	446.183	361.482	3.7895
227.00	94.1640	383.872	317.084	3.5455	287.00	119.845	447.235	362.231	3.7932
228.00	94.5954	384.934	317.840	3.5501	288.00	120.271	448.286	362.981	3.7968
229.00	95.0266	385.996	318.596	3.5548	289.00	120.696	449.337	363.731	3.8005
230.00	95.4577	387.058	319.352	3.5594	290.00	121.122	450.389	364.480	3.8041
231.00	95.8886	388.119	320.108	3.5640	291.00	121.547	451.440	365.230	3.8077
232.00	96.3193	389.180	320.864	3.5686	292.00	121.972	452.491	365.979	3.8113
233.00	96.7500	390.241	321.619	3.5731	293.00	122.397	453.542	366.729	3.8149
234.00	97.1805	391.302	322.374	3.5777	294.00	122.822	454.593	367.478	3.8185
235.00	97.6108	392.362	323.129	3.5822	295.00	123.247	455.644	368.228	3.8221
236.00	98.0411	393.422	323.884	3.5867	296.00	123.672	456.694	368.977	3.8256
237.00	98.4711	394.482	324.639	3.5912	297.00	124.097	457.745	369.726	3.8292
238.00	98.9011	395.542	325.394	3.5957	298.00	124.522	458.795	370.475	3.8327
239.00	99.3309	396.601	326.148	3.6001	299.00	124.947	459.846	371.224	3.8362
240.00	99.7607	397.660	326.903	3.6045	300.00	125.372	460.896	371.973	3.8397

8.00 ATMOSPHERE ISO8AR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	39.9947	265.928	233.509	2.8023
					122.00	40.4424	267.144	234.361	2.8123
					123.00	40.8878	268.354	235.210	2.8222
64.00	1.1544	2.3922	1.4564	.0232	124.00	41.3309	269.559	236.056	2.8319
65.00	1.1598	4.4414	3.5012	.0549	125.00	41.7720	270.760	236.899	2.8416
66.00	1.1653	6.4952	5.5506	.0863	126.00	42.2110	271.956	237.740	2.8511
67.00	1.1709	8.5525	7.6034	.1172	127.00	42.6480	273.148	238.577	2.8605
68.00	1.1766	10.6123	9.6586	.1477	128.00	43.0832	274.336	239.413	2.8698
69.00	1.1824	12.6737	11.7152	.1778	129.00	43.5167	275.520	240.245	2.8790
70.00	1.1884	14.7357	13.7724	.2075	130.00	43.9484	276.700	241.075	2.8882
71.00	1.1944	16.7976	15.8294	.2367	131.00	44.3785	277.877	241.904	2.8972
72.00	1.2006	18.8589	17.8857	.2656	132.00	44.8069	279.050	242.729	2.9061
73.00	1.2069	20.9191	19.9407	.2940	133.00	45.2339	280.220	243.553	2.9149
74.00	1.2134	22.9776	21.9941	.3220	134.00	45.6594	281.386	244.375	2.9237
75.00	1.2200	25.0344	24.0455	.3496	135.00	46.0835	282.550	245.195	2.9323
76.00	1.2267	27.0892	26.0948	.3768	136.00	46.5063	283.711	246.013	2.9409
77.00	1.2335	29.1420	28.1421	.4037	137.00	46.9277	284.868	246.829	2.9494
78.00	1.2405	31.1931	30.1875	.4301	138.00	47.3479	286.024	247.643	2.9578
79.00	1.2476	33.2426	32.2312	.4562	139.00	47.7669	287.176	248.456	2.9661
80.00	1.2549	35.2910	34.2737	.4820	140.00	48.1846	288.326	249.267	2.9743
81.00	1.2624	37.3388	36.3155	.5074	141.00	48.6013	289.473	250.077	2.9825
82.00	1.2700	39.3867	38.3572	.5326	142.00	49.0168	290.618	250.885	2.9906
83.00	1.2778	41.4355	40.3997	.5574	143.00	49.4313	291.761	251.692	2.9986
84.00	1.2858	43.4861	42.4439	.5820	144.00	49.8448	292.901	252.497	3.0066
85.00	1.2940	45.5396	44.4907	.6063	145.00	50.2572	294.039	253.301	3.0144
86.00	1.3023	47.5971	46.5415	.6303	146.00	50.6687	295.176	254.104	3.0222
87.00	1.3109	49.6600	48.5973	.6542	147.00	51.0793	296.310	254.905	3.0300
88.00	1.3197	51.7295	50.6597	.6778	148.00	51.4890	297.442	255.705	3.0377
89.00	1.3288	53.8071	52.7300	.7013	149.00	51.8978	298.572	256.504	3.0453
90.00	1.3381	55.8945	54.8099	.7246	150.00	52.3057	299.700	257.301	3.0528
91.00	1.3476	57.9934	56.9010	.7478	151.00	52.7128	300.827	258.098	3.0603
92.00	1.3575	60.1054	59.0050	.7709	152.00	53.1191	301.952	258.894	3.0677
93.00	1.3676	62.2324	61.1238	.7939	153.00	53.5246	303.075	259.688	3.0751
94.00	1.3781	64.3763	63.2592	.8168	154.00	53.9294	304.196	260.481	3.0824
95.00	1.3890	66.5392	65.4133	.8397	155.00	54.3334	305.316	261.274	3.0896
96.00	1.4002	68.7233	67.5882	.8626	156.00	54.7368	306.435	262.065	3.0968
97.00	..4119	70.9306	69.7862	.8855	157.00	55.1394	307.552	262.856	3.1040
98.00	1.4239	73.1636	72.0094	.9084	158.00	55.5414	308.667	263.645	3.1111
99.00	1.4365	75.4249	74.2604	.9313	159.00	55.9427	309.781	264.434	3.1181
100.00	1.4497	77.7171	76.5420	.9544	160.00	56.3433	310.893	265.222	3.1251
* 100.598	1.4578	79.1040	77.9224	.9682					
* 100.598	30.0598	239.353	214.987	2.5611	161.00	56.7433	312.005	266.008	3.1320
101.00	30.2789	239.930	215.385	2.5669	162.00	57.1428	313.114	266.795	3.1389
102.00	30.8178	241.349	216.368	2.5808	163.00	57.5416	314.223	267.580	3.1457
103.00	31.3482	242.749	217.338	2.5945	164.00	57.9399	315.330	268.364	3.1524
104.00	31.8710	244.132	218.297	2.6079	165.00	58.3376	316.437	269.148	3.1592
105.00	32.3867	245.499	219.246	2.6209	166.00	58.7348	317.541	269.931	3.1658
106.00	32.8959	246.851	220.186	2.6338	167.00	59.1314	318.645	270.713	3.1725
107.00	33.3991	248.190	221.116	2.6463	168.00	59.5275	319.748	271.495	3.1791
108.00	33.8968	249.516	222.039	2.6587	169.00	59.9231	320.850	272.276	3.1856
109.00	34.3893	250.830	222.954	2.6708	170.00	60.3182	321.950	273.056	3.1921
110.00	34.8769	252.134	223.863	2.6827					
111.00	35.3601	253.428	224.765	2.6944	171.00	60.7129	323.049	273.836	3.1985
112.00	35.8390	254.712	225.661	2.7059	172.00	61.1070	324.148	274.615	3.2049
113.00	36.3139	255.988	226.552	2.7173	173.00	61.5008	325.245	275.393	3.2113
114.00	36.7851	257.255	227.437	2.7284	174.00	61.8940	326.342	276.171	3.2176
115.00	37.2528	258.514	228.317	2.7394	175.00	62.2868	327.437	276.948	3.2239
116.00	37.7171	259.766	229.193	2.7503	176.00	62.6792	328.532	277.724	3.2301
117.00	38.1783	261.011	230.064	2.7609	177.00	63.0712	329.626	278.500	3.2363
118.00	38.6365	262.249	230.931	2.7715	178.00	63.4628	330.718	279.275	3.2425
119.00	39.0919	263.482	231.794	2.7819	179.00	63.8540	331.810	280.050	3.2486
120.00	39.5446	264.708	232.653	2.7921	180.00	64.2448	332.901	280.825	3.2547

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	64.6352	333.992	281.598	3.2607	241.00	87.5870	398.382	327.384	3.5682
182.00	65.0252	335.081	282.372	3.2667	242.00	87.9641	399.444	328.140	3.5726
183.00	65.4149	336.170	283.145	3.2727	243.00	88.3412	400.505	328.896	3.5769
184.00	65.8042	337.258	283.917	3.2786	244.00	88.7181	401.566	329.651	3.5813
185.00	66.1932	338.345	284.689	3.2845	245.00	89.0949	402.627	330.407	3.5856
186.00	66.5818	339.431	285.460	3.2904	246.00	89.4716	403.688	331.162	3.5900
187.00	66.9701	340.517	286.231	3.2962	247.00	89.8482	404.748	331.917	3.5943
188.00	67.3581	341.602	287.001	3.3020	248.00	90.2247	405.808	332.672	3.5985
189.00	67.7457	342.686	287.771	3.3077	249.00	90.6011	406.868	333.427	3.6028
190.00	68.1330	343.770	288.541	3.3135	250.00	90.9773	407.928	334.182	3.6071
191.00	68.5201	344.853	289.310	3.3191	251.00	91.3535	408.987	334.936	3.6113
192.00	68.9068	345.935	290.079	3.3248	252.00	91.7295	410.046	335.691	3.6155
193.00	69.2933	347.016	290.847	3.3304	253.00	92.1055	411.105	336.445	3.6197
194.00	69.6794	348.098	291.615	3.3360	254.00	92.4813	412.164	337.199	3.6239
195.00	70.0653	349.178	292.383	3.3416	255.00	92.8571	413.223	337.953	3.6280
196.00	70.4509	350.258	293.150	3.3471	256.00	93.2327	414.281	338.707	3.6322
197.00	70.8362	351.337	293.917	3.3526	257.00	93.6083	415.339	339.461	3.6363
198.00	71.2213	352.416	294.684	3.3580	258.00	93.9837	416.397	340.214	3.6404
199.00	71.6061	353.494	295.450	3.3635	259.00	94.3591	417.455	340.968	3.6445
200.00	71.9906	354.571	296.216	3.3689	260.00	94.7344	418.513	341.721	3.6486
201.00	72.3749	355.648	296.981	3.3742	261.00	95.1095	419.570	342.474	3.6526
202.00	72.7590	356.725	297.746	3.3796	262.00	95.4846	420.627	343.228	3.6567
203.00	73.1428	357.801	298.511	3.3849	263.00	95.8596	421.684	343.981	3.6607
204.00	73.5264	358.876	299.276	3.3902	264.00	96.2346	422.741	344.734	3.6647
205.00	73.9097	359.951	300.040	3.3954	265.00	96.6094	423.798	345.487	3.6687
206.00	74.2929	361.025	300.804	3.4007	266.00	96.9841	424.854	346.239	3.6727
207.00	74.6758	362.099	301.567	3.4059	267.00	97.3588	425.911	346.992	3.6766
208.00	75.0584	363.173	302.331	3.4110	268.00	97.7334	426.967	347.744	3.6806
209.00	75.4409	364.246	303.094	3.4162	269.00	98.1079	428.023	348.497	3.6845
210.00	75.8232	365.319	303.856	3.4213	270.00	98.4823	429.079	349.249	3.6884
211.00	76.2052	366.391	304.619	3.4264	271.00	98.8566	430.134	350.001	3.6924
212.00	76.5871	367.462	305.381	3.4315	272.00	99.2309	431.190	350.754	3.6962
213.00	76.9687	368.534	306.143	3.4365	273.00	99.6050	432.245	351.506	3.7001
214.00	77.3502	369.604	306.904	3.4415	274.00	99.9791	433.301	352.258	3.7040
215.00	77.7315	370.675	307.666	3.4465	275.00	100.353	434.356	353.009	3.7078
216.00	78.1125	371.745	308.427	3.4515	276.00	100.727	435.410	353.761	3.7116
217.00	78.4934	372.814	309.188	3.4564	277.00	101.101	436.465	354.513	3.7155
218.00	78.8741	373.884	309.948	3.4613	278.00	101.475	437.520	355.264	3.7193
219.00	79.2547	374.953	310.709	3.4662	279.00	101.849	438.574	356.016	3.7230
220.00	79.6350	376.021	311.469	3.4711	280.00	102.222	439.629	356.767	3.7268
221.00	80.0152	377.089	312.229	3.4759	281.00	102.596	440.683	357.519	3.7306
222.00	80.3952	378.157	312.989	3.4808	282.00	102.969	441.737	358.270	3.7343
223.00	80.7751	379.224	313.748	3.4855	283.00	103.343	442.791	359.021	3.7380
224.00	81.1548	380.291	314.507	3.4903	284.00	103.716	443.845	359.772	3.7418
225.00	81.5343	381.358	315.266	3.4951	285.00	104.090	444.898	360.523	3.7455
226.00	81.9137	382.424	316.025	3.4998	286.00	104.463	445.952	361.274	3.7492
227.00	82.2929	383.490	316.784	3.5045	287.00	104.836	447.005	362.025	3.7528
228.00	82.6719	384.556	317.542	3.5092	288.00	105.209	448.058	362.776	3.7565
229.00	83.0509	385.621	318.300	3.5139	289.00	105.582	449.112	363.527	3.7602
230.00	83.4296	386.686	319.058	3.5185	290.00	105.955	450.165	364.277	3.7638
231.00	83.8082	387.751	319.816	3.5231	291.00	106.328	451.218	365.028	3.7674
232.00	84.1867	388.815	320.574	3.5277	292.00	106.701	452.270	365.779	3.7710
233.00	84.5651	389.879	321.331	3.5323	293.00	107.074	453.323	366.529	3.7746
234.00	84.9433	390.943	322.088	3.5368	294.00	107.447	454.376	367.280	3.7782
235.00	85.3213	392.007	322.845	3.5414	295.00	107.819	455.428	368.030	3.7818
236.00	85.6992	393.070	323.602	3.5459	296.00	108.192	456.481	368.780	3.7853
237.00	86.0770	394.133	324.359	3.5504	297.00	108.565	457.533	369.531	3.7889
238.00	86.4547	395.196	325.116	3.5549	298.00	108.937	458.585	370.281	3.7924
239.00	86.8322	396.258	325.872	3.5593	299.00	109.310	459.637	371.031	3.7960
240.00	87.2097	397.320	326.628	3.5638	300.00	109.682	460.689	371.781	3.7995

9.00 ATMOSPHERE ISO8AR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	35.0255	264.457	232.517	2.7588
					122.00	35.4354	265.703	233.389	2.7690
					123.00	35.8427	266.942	234.257	2.7792
64.00	1.1542	2.4748	1.4222	.0226	124.00	36.2477	268.176	235.121	2.7891
65.00	1.1596	4.5232	3.4658	.0544	125.00	36.6503	269.404	235.981	2.7990
66.00	1.1651	6.5763	5.5138	.0857	126.00	37.0508	270.626	236.838	2.8087
67.00	1.1706	8.6328	7.5653	.1166	127.00	37.4492	271.843	237.692	2.8184
68.00	1.1763	10.6918	9.6191	.1472	128.00	37.8456	273.055	238.543	2.8279
69.00	1.1822	12.7523	11.6743	.1772	129.00	38.2401	274.263	239.391	2.8373
70.00	1.1881	14.8135	13.7300	.2069	130.00	38.6328	275.466	240.236	2.8466
71.00	1.1942	16.8746	15.7856	.2361	131.00	39.0237	276.664	241.078	2.8557
72.00	1.2003	18.9350	17.8404	.2649	132.00	39.4130	277.859	241.917	2.8648
73.00	1.2066	20.9942	19.8938	.2933	133.00	39.8006	279.049	242.754	2.8738
74.00	1.2131	23.0518	21.9456	.3213	134.00	40.1867	280.236	243.588	2.8827
75.00	1.2196	25.1075	23.9953	.3489	135.00	40.5714	281.419	244.421	2.8915
76.00	1.2263	27.1613	26.0430	.3761	136.00	40.9546	282.598	245.251	2.9002
77.00	1.2332	29.2131	28.0885	.4030	137.00	41.3364	283.774	246.078	2.9088
78.00	1.2401	31.2630	30.1321	.4294	138.00	41.7169	284.947	246.904	2.9173
79.00	1.2473	33.3113	32.1739	.4555	139.00	42.0961	286.116	247.728	2.9258
80.00	1.2545	35.3584	34.2144	.4813	140.00	42.4741	287.283	248.550	2.9342
81.00	1.2620	37.4049	36.2541	.5067	141.00	42.8509	288.446	249.370	2.9424
82.00	1.2696	39.4514	38.2937	.5318	142.00	43.2266	289.607	250.188	2.9506
83.00	1.2773	41.4988	40.3339	.5566	143.00	43.6012	290.765	251.004	2.9588
84.00	1.2853	43.5478	42.3757	.5811	144.00	43.9747	291.921	251.819	2.9668
85.00	1.2934	45.5996	44.4201	.6054	145.00	44.3471	293.073	252.632	2.9748
86.00	1.3018	47.6553	46.4682	.6295	146.00	44.7186	294.224	253.444	2.9827
87.00	1.3103	49.7163	48.5213	.6533	147.00	45.0891	295.372	254.254	2.9905
88.00	1.3191	51.7837	50.5808	.6769	148.00	45.4587	296.518	255.063	2.9983
89.00	1.3281	53.8592	52.6481	.7004	149.00	45.8273	297.661	255.870	3.0060
90.00	1.3374	55.9443	54.7247	.7237	150.00	46.1951	298.802	256.676	3.0136
91.00	1.3469	58.0406	56.8123	.7468	151.00	46.5620	299.941	257.480	3.0212
92.00	1.3567	60.1498	58.9126	.7699	152.00	46.9281	301.079	258.284	3.0287
93.00	1.3668	62.2739	61.0274	.7929	153.00	47.2934	302.214	259.086	3.0362
94.00	1.3773	64.4146	63.1586	.8157	154.00	47.6579	303.347	259.887	3.0435
95.00	1.3881	66.5740	65.3082	.8386	155.00	48.0217	304.478	260.686	3.0509
96.00	1.3992	68.7542	67.4782	.8614	156.00	48.3847	305.608	261.485	3.0581
97.00	1.4108	70.9574	69.6708	.8843	157.00	48.7470	306.736	262.282	3.0653
98.00	1.4228	73.1858	71.8883	.9071	158.00	49.1087	307.862	263.079	3.0725
99.00	1.4353	75.4420	74.1331	.9300	159.00	49.4696	308.986	263.874	3.0796
100.00	1.4484	77.7285	76.4077	.9530	160.00	49.8299	310.109	264.668	3.0866
101.00	1.4620	80.0483	78.7151	.9761					
102.00	1.4762	82.4046	81.0583	.9993	161.00	50.1896	311.231	265.461	3.0936
* 102.341	1.4813	83.2169	81.8661	1.0072	162.00	50.5486	312.350	266.254	3.1005
* 102.341	26.6503	239.362	215.059	2.5330	163.00	50.9070	313.469	267.045	3.1074
103.00	26.9830	240.343	215.737	2.5425	164.00	51.2649	314.585	267.836	3.1143
104.00	27.4798	241.812	216.752	2.5567	165.00	51.6222	315.701	268.625	3.1210
105.00	27.9680	243.258	217.753	2.5706	166.00	51.9789	316.815	269.414	3.1278
106.00	28.4483	244.683	218.741	2.5841	167.00	52.3351	317.928	270.202	3.1344
107.00	28.9214	246.090	219.716	2.5973	168.00	52.6907	319.039	270.989	3.1411
108.00	29.3878	247.480	220.680	2.6102	169.00	53.0458	320.149	271.776	3.1477
109.00	29.8482	248.854	221.634	2.6229	170.00	53.4005	321.258	272.561	3.1542
110.00	30.3029	250.213	222.579	2.6353					
111.00	30.7525	251.559	223.516	2.6475	171.00	53.7546	322.366	273.346	3.1607
112.00	31.1971	252.893	224.444	2.6594	172.00	54.1083	323.472	274.130	3.1672
113.00	31.6373	254.215	225.365	2.6712	173.00	54.4615	324.578	274.913	3.1736
114.00	32.0732	255.527	226.279	2.6827	174.00	54.8142	325.682	275.696	3.1799
115.00	32.5051	256.828	227.186	2.6941	175.00	55.1665	326.785	276.478	3.1863
116.00	32.9333	258.120	228.088	2.7053	176.00	55.5184	327.888	277.259	3.1925
117.00	33.3580	259.403	228.984	2.7163	177.00	55.8698	328.989	278.040	3.1988
118.00	33.7794	260.678	229.874	2.7272	178.00	56.2209	330.089	278.820	3.2050
119.00	34.1977	261.945	230.760	2.7379	179.00	56.5715	331.188	279.599	3.2111
120.00	34.6130	263.205	231.640	2.7484	180.00	56.9217	332.286	280.378	3.2172

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	57.2716	333.383	281.156	3.2233	241.00	77.7848	398.045	327.111	3.5321
182.00	57.6210	334.479	281.933	3.2294	242.00	78.1213	399.110	327.869	3.5365
183.00	57.9701	335.575	282.710	3.2354	243.00	78.4577	400.174	328.627	3.5409
184.00	58.3189	336.669	283.487	3.2413	244.00	78.7940	401.238	329.384	3.5453
185.00	58.6673	337.763	284.263	3.2473	245.00	79.1301	402.302	330.141	3.5496
186.00	59.0153	338.856	285.038	3.2532	246.00	79.4661	403.365	330.898	3.5539
187.00	59.3630	339.947	285.813	3.2590	247.00	79.8020	404.428	331.655	3.5582
188.00	59.7104	341.039	286.587	3.2648	248.00	80.1378	405.491	332.412	3.5625
189.00	60.0574	342.129	287.361	3.2706	249.00	80.4735	406.554	333.168	3.5668
190.00	60.4042	343.218	288.134	3.2764	250.00	80.8091	407.616	333.924	3.5711
191.00	60.7506	344.307	288.907	3.2821	251.00	81.1446	408.678	334.681	3.5753
192.00	61.0967	345.395	289.680	3.2878	252.00	81.4800	409.740	335.437	3.5795
193.00	61.4426	346.483	290.452	3.2934	253.00	81.8152	410.802	336.193	3.5837
194.00	61.7881	347.569	291.223	3.2990	254.00	82.1504	411.863	336.948	3.5879
195.00	62.1334	348.655	291.994	3.3046	255.00	82.4855	412.924	337.704	3.5921
196.00	62.4783	349.740	292.765	3.3102	256.00	82.8204	413.985	338.459	3.5963
197.00	62.8231	350.825	293.535	3.3157	257.00	83.1553	415.046	339.215	3.6004
198.00	63.1675	351.909	294.305	3.3212	258.00	83.4901	416.106	339.970	3.6045
199.00	63.5117	352.992	295.074	3.3266	259.00	83.8248	417.167	340.725	3.6086
200.00	63.8556	354.075	295.843	3.3320	260.00	84.1593	418.227	341.480	3.6127
201.00	64.1993	355.157	296.612	3.3374	261.00	84.4938	419.287	342.235	3.6168
202.00	64.5427	356.238	297.380	3.3428	262.00	84.8283	420.346	342.989	3.6208
203.00	64.8859	357.319	298.148	3.3481	263.00	85.1626	421.406	343.744	3.6249
204.00	65.2288	358.399	298.916	3.3535	264.00	85.4968	422.465	344.498	3.6289
205.00	65.5715	359.479	299.683	3.3587	265.00	85.8309	423.524	345.252	3.6329
206.00	65.9140	360.558	300.450	3.3640	266.00	86.1650	424.582	346.007	3.6369
207.00	66.2562	361.637	301.216	3.3692	267.00	86.4990	425.641	346.761	3.6408
208.00	66.5983	362.715	301.982	3.3744	268.00	86.8329	426.699	347.514	3.6448
209.00	66.9401	363.792	302.748	3.3796	269.00	87.1667	427.758	348.268	3.6487
210.00	67.2817	364.869	303.514	3.3847	270.00	87.5004	428.816	349.022	3.6527
211.00	67.6231	365.946	304.279	3.3898	271.00	87.8341	429.873	349.775	3.6566
212.00	67.9643	367.022	305.044	3.3949	272.00	88.1676	430.931	350.529	3.6605
213.00	68.3053	368.097	305.808	3.4000	273.00	88.5011	431.989	351.282	3.6643
214.00	68.6461	369.172	306.572	3.4050	274.00	88.8345	433.046	352.036	3.6682
215.00	68.9867	370.247	307.336	3.4100	275.00	89.1679	434.103	352.789	3.6721
216.00	69.3271	371.321	308.100	3.4150	276.00	89.5012	435.160	353.542	3.6759
217.00	69.6674	372.395	308.863	3.4200	277.00	89.8344	436.217	354.295	3.6797
218.00	70.0074	373.468	309.627	3.4249	278.00	90.1675	437.273	355.047	3.6835
219.00	70.3473	374.541	310.389	3.4298	279.00	90.5005	438.330	355.800	3.6873
220.00	70.6870	375.613	311.152	3.4347	280.00	90.8335	439.386	356.553	3.6911
221.00	71.0265	376.685	311.914	3.4396	281.00	91.1664	440.442	357.305	3.6949
222.00	71.3659	377.756	312.676	3.4444	282.00	91.4993	441.498	358.058	3.6986
223.00	71.7051	378.828	313.438	3.4492	283.00	91.8320	442.554	358.810	3.7024
224.00	72.0441	379.898	314.200	3.4540	284.00	92.1648	443.610	359.563	3.7061
225.00	72.3830	380.969	314.961	3.4588	285.00	92.4974	444.665	360.315	3.7098
226.00	72.7217	382.038	315.722	3.4635	286.00	92.8300	445.721	361.067	3.7135
227.00	73.0602	383.108	316.483	3.4682	287.00	93.1625	446.776	361.819	3.7172
228.00	73.3986	384.177	317.243	3.4729	288.00	93.4949	447.831	362.571	3.7208
229.00	73.7368	385.246	318.004	3.4776	289.00	93.8273	448.886	363.323	3.7245
230.00	74.0749	386.314	318.764	3.4823	290.00	94.1597	449.941	364.074	3.7281
231.00	74.4129	387.383	319.524	3.4869	291.00	94.4919	450.996	364.826	3.7318
232.00	74.7507	388.450	320.283	3.4915	292.00	94.8241	452.050	365.578	3.7354
233.00	75.0883	389.518	321.043	3.4961	293.00	95.1563	453.105	366.329	3.7390
234.00	75.4259	390.585	321.802	3.5007	294.00	95.4884	454.159	367.081	3.7426
235.00	75.7633	391.651	322.561	3.5052	295.00	95.8204	455.213	367.832	3.7462
236.00	76.1005	392.718	323.320	3.5098	296.00	96.1524	456.267	368.584	3.7497
237.00	76.4376	393.784	324.079	3.5143	297.00	96.4843	457.321	369.335	3.7533
238.00	76.7746	394.850	324.837	3.5187	298.00	96.8162	458.375	370.086	3.7568
239.00	77.1115	395.915	325.595	3.5232	299.00	97.1480	459.429	370.837	3.7604
240.00	77.4482	396.980	326.353	3.5277	300.00	97.4797	460.482	371.588	3.7639

10.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
64.00	1.1540	2.5575	1.3881	.0221
65.00	1.1594	4.6051	3.4304	.0538
66.00	1.1648	6.6574	5.4771	.0852
67.00	1.1704	8.7131	7.5272	.1161
68.00	1.1761	10.7713	9.5796	.1466
69.00	1.1819	12.8310	11.6334	.1766
70.00	1.1878	14.8913	13.6878	.2063
71.00	1.1939	16.9516	15.7419	.2355
72.00	1.2001	19.0111	17.7951	.2643
73.00	1.2064	21.0694	19.8470	.2927
74.00	1.2128	23.1260	21.8972	.3207
75.00	1.2193	25.1808	23.9453	.3483
76.00	1.2260	27.2335	25.9913	.3755
77.00	1.2328	29.2842	28.0350	.4023
78.00	1.2398	31.3330	30.0768	.4287
79.00	1.2469	33.3801	32.1167	.4548
80.00	1.2541	35.4260	34.1553	.4805
81.00	1.2616	37.4712	36.1929	.5059
82.00	1.2691	39.5163	38.2304	.5310
83.00	1.2769	41.5621	40.2683	.5558
84.00	1.2848	43.6096	42.3078	.5803
85.00	1.2929	45.6598	44.3497	.6046
86.00	1.3012	47.7137	46.3952	.6286
87.00	1.3098	49.7728	48.4456	.6524
88.00	1.3185	51.8382	50.5022	.6760
89.00	1.3275	53.9115	52.5665	.6995
90.00	1.3367	55.9943	54.6398	.7227
91.00	1.3462	58.0881	56.7240	.7459
92.00	1.3560	60.1946	58.8207	.7689
93.00	1.3660	62.3157	60.9316	.7918
94.00	1.3764	64.4533	63.0586	.8147
95.00	1.3872	66.6093	65.2037	.8375
96.00	1.3983	68.7857	67.3689	.8603
97.00	1.4098	70.9847	69.5563	.8831
98.00	1.4217	73.2086	71.7681	.9059
99.00	1.4341	75.4598	74.0067	.9287
100.00	1.4471	77.7408	76.2746	.9517
101.00	1.4606	80.0544	78.5745	.9747
102.00	1.4747	82.4037	80.9095	.9978
103.00	1.4896	84.7922	83.2829	1.0211
* 103.950	1.5044	87.1003	85.5760	1.0434
* 103.950	23.8889	239.232	215.027	2.5069
104.00	23.9129	239.310	215.081	2.5077
105.00	24.3849	240.855	216.147	2.5225
106.00	24.8470	242.370	217.193	2.5368
107.00	25.3003	243.859	218.223	2.5508
108.00	25.7456	245.324	219.237	2.5644
109.00	26.1835	246.768	220.238	2.5778
110.00	26.6148	248.193	221.226	2.5908
111.00	27.0400	249.600	222.202	2.6035
112.00	27.4595	250.991	223.167	2.6160
113.00	27.8738	252.366	224.123	2.6282
114.00	28.2833	253.728	225.070	2.6402
115.00	28.6883	255.077	226.009	2.6520
116.00	29.0890	256.414	226.939	2.6636
117.00	29.4858	257.739	227.863	2.6749
118.00	29.8790	259.054	228.780	2.6861
119.00	30.2686	260.360	229.690	2.6971
120.00	30.6550	261.656	230.595	2.7080
121.00	31.0384	262.943	231.493	2.7187
122.00	31.4188	264.222	232.387	2.7292
123.00	31.7965	265.494	233.276	2.7396
124.00	32.1715	266.758	234.160	2.7498
125.00	32.5441	268.015	235.039	2.7599
126.00	32.9144	269.265	235.915	2.7699
127.00	33.2824	270.509	236.786	2.7797
128.00	33.6482	271.747	237.653	2.7894
129.00	34.0120	272.980	238.517	2.7990
130.00	34.3739	274.207	239.378	2.8085
131.00	34.7340	275.429	240.235	2.8178
132.00	35.0922	276.646	241.088	2.8271
133.00	35.4488	277.858	241.939	2.8363
134.00	35.8037	279.065	242.787	2.8453
135.00	36.1570	280.269	243.633	2.8542
136.00	36.5089	281.468	244.475	2.8631
137.00	36.8593	282.663	245.315	2.8718
138.00	37.2083	283.854	246.153	2.8805
139.00	37.5560	285.042	246.988	2.8891
140.00	37.9024	286.226	247.821	2.8976
141.00	38.2475	287.406	248.652	2.9060
142.00	38.5915	288.583	249.481	2.9143
143.00	38.9343	289.758	250.307	2.9225
144.00	39.2760	290.928	251.132	2.9307
145.00	39.6166	292.096	251.955	2.9388
146.00	39.9562	293.262	252.776	2.9468
147.00	40.2948	294.424	253.595	2.9547
148.00	40.6324	295.584	254.413	2.9626
149.00	40.9691	296.741	255.229	2.9704
150.00	41.3049	297.895	256.043	2.9781
151.00	41.6397	299.048	256.856	2.9858
152.00	41.9738	300.197	257.668	2.9933
153.00	42.3070	301.345	258.477	3.0009
154.00	42.6394	302.490	259.286	3.0083
155.00	42.9710	303.634	260.093	3.0157
156.00	43.3019	304.775	260.899	3.0231
157.00	43.6320	305.914	261.704	3.0303
158.00	43.9615	307.051	262.507	3.0376
159.00	44.2902	308.186	263.309	3.0447
160.00	44.6183	309.320	264.110	3.0518
161.00	44.9457	310.451	264.910	3.0589
162.00	45.2725	311.581	265.709	3.0659
163.00	45.5987	312.709	266.507	3.0728
164.00	45.9242	313.836	267.303	3.0797
165.00	46.2492	314.961	268.099	3.0866
166.00	46.5736	316.084	268.893	3.0933
167.00	46.8975	317.206	269.687	3.1001
168.00	47.2208	318.326	270.480	3.1068
169.00	47.5436	319.445	271.272	3.1134
170.00	47.8659	320.563	272.063	3.1200
171.00	48.1877	321.679	272.853	3.1265
172.00	48.5090	322.794	273.642	3.1330
173.00	48.8298	323.907	274.431	3.1395
174.00	49.1502	325.020	275.218	3.1459
175.00	49.4701	326.131	276.005	3.1523
176.00	49.7896	327.240	276.791	3.1586
177.00	50.1086	328.349	277.577	3.1649
178.00	50.4272	329.457	278.361	3.1711
179.00	50.7454	330.563	279.145	3.1773
180.00	51.0633	331.668	279.928	3.1835

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	51.3807	332.772	280.711	3.1896	241.00	69.9436	397.708	326.838	3.4997
182.00	51.6977	333.876	281.493	3.1957	242.00	70.2475	398.776	327.598	3.5041
183.00	52.0144	334.978	282.274	3.2017	243.00	70.5514	399.843	328.357	3.5085
184.00	52.3307	336.079	283.055	3.2077	244.00	70.8551	400.910	329.116	3.5129
185.00	52.6466	337.179	283.835	3.2137	245.00	71.1587	401.977	329.875	3.5173
186.00	52.9622	338.278	284.614	3.2196	246.00	71.4622	403.043	330.634	3.5216
187.00	53.2775	339.376	285.393	3.2255	247.00	71.7655	404.109	331.392	3.5259
188.00	53.5924	340.474	286.171	3.2313	248.00	72.0688	405.174	332.151	3.5302
189.00	53.9070	341.570	286.949	3.2372	249.00	72.3719	406.240	332.909	3.5345
190.00	54.2212	342.666	287.726	3.2429	250.00	72.6750	407.305	333.667	3.5388
191.00	54.5352	343.761	288.503	3.2487	251.00	72.9779	408.370	334.425	3.5430
192.00	54.8489	344.855	289.279	3.2544	252.00	73.2807	409.434	335.183	3.5473
193.00	55.1622	345.948	290.055	3.2601	253.00	73.5834	410.499	335.940	3.5515
194.00	55.4753	347.040	290.830	3.2657	254.00	73.8861	411.562	336.698	3.5557
195.00	55.7881	348.131	291.604	3.2713	255.00	74.1886	412.626	337.455	3.5599
196.00	56.1005	349.222	292.378	3.2769	256.00	74.4910	413.690	338.212	3.5640
197.00	56.4128	350.312	293.152	3.2825	257.00	74.7933	414.753	338.969	3.5682
198.00	56.7247	351.401	293.925	3.2880	258.00	75.0956	415.816	339.725	3.5723
199.00	57.0364	352.490	294.698	3.2935	259.00	75.3977	416.879	340.482	3.5764
200.00	57.3478	353.578	295.470	3.2989	260.00	75.6998	417.941	341.238	3.5805
201.00	57.6590	354.665	296.242	3.3043	261.00	76.0017	419.003	341.995	3.5846
202.00	57.9699	355.751	297.013	3.3097	262.00	76.3036	420.065	342.751	3.5886
203.00	58.2806	356.837	297.784	3.3151	263.00	76.6053	421.127	343.507	3.5927
204.00	58.5910	357.922	298.555	3.3204	264.00	76.9070	422.188	344.262	3.5967
205.00	58.9012	359.007	299.325	3.3257	265.00	77.2086	423.250	345.018	3.6007
206.00	59.2112	360.090	300.095	3.3310	266.00	77.5101	424.311	345.774	3.6047
207.00	59.5210	361.174	300.864	3.3362	267.00	77.8116	425.372	346.529	3.6087
208.00	59.8305	362.256	301.633	3.3415	268.00	78.1129	426.432	347.284	3.6127
209.00	60.1398	363.338	302.402	3.3467	269.00	78.4142	427.493	348.040	3.6166
210.00	60.4489	364.420	303.170	3.3518	270.00	78.7153	428.553	348.795	3.6206
211.00	60.7578	365.501	303.938	3.3570	271.00	79.0164	429.613	349.549	3.6245
212.00	61.0665	366.581	304.706	3.3621	272.00	79.3175	430.673	350.304	3.6284
213.00	61.3749	367.661	305.473	3.3671	273.00	79.6184	431.732	351.059	3.6323
214.00	61.6832	368.740	306.240	3.3722	274.00	79.9193	432.792	351.813	3.6361
215.00	61.9913	369.819	307.006	3.3772	275.00	80.2201	433.851	352.568	3.6400
216.00	62.2992	370.897	307.772	3.3822	276.00	80.5208	434.910	353.322	3.6438
217.00	62.6069	371.975	308.538	3.3872	277.00	80.8214	435.969	354.076	3.6477
218.00	62.9145	373.052	309.304	3.3922	278.00	81.1220	437.027	354.830	3.6515
219.00	63.2218	374.129	310.069	3.3971	279.00	81.4225	438.086	355.584	3.6553
220.00	63.5290	375.205	310.834	3.4020	280.00	81.7230	439.144	356.338	3.6591
221.00	63.8360	376.281	311.599	3.4069	281.00	82.0233	440.202	357.092	3.6628
222.00	64.1428	377.356	312.363	3.4117	282.00	82.3236	441.260	357.846	3.6666
223.00	64.4495	378.431	313.127	3.4166	283.00	82.6238	442.318	358.599	3.6703
224.00	64.7559	379.505	313.891	3.4214	284.00	82.9240	443.375	359.353	3.6741
225.00	65.0623	380.579	314.655	3.4261	285.00	83.2241	444.433	360.106	3.6778
226.00	65.3685	381.653	315.418	3.4309	286.00	83.5241	445.490	360.859	3.6815
227.00	65.6745	382.726	316.181	3.4356	287.00	83.8241	446.547	361.612	3.6852
228.00	65.9803	383.798	316.944	3.4404	288.00	84.1240	447.604	362.366	3.6889
229.00	66.2860	384.871	317.706	3.4451	289.00	84.4238	448.661	363.119	3.6925
230.00	66.5916	385.943	318.469	3.4497	290.00	84.7236	449.718	363.871	3.6962
231.00	66.8970	387.014	319.231	3.4544	291.00	85.0233	450.774	364.624	3.6998
232.00	67.2023	388.085	319.993	3.4590	292.00	85.3230	451.830	365.377	3.7034
233.00	67.5074	389.156	320.754	3.4636	293.00	85.6226	452.887	366.130	3.7070
234.00	67.8124	390.226	321.515	3.4682	294.00	85.9221	453.943	366.882	3.7106
235.00	68.1172	391.296	322.276	3.4727	295.00	86.2216	454.999	367.635	3.7142
236.00	68.4220	392.366	323.037	3.4773	296.00	86.5210	456.054	368.387	3.7178
237.00	68.7265	393.435	323.798	3.4818	297.00	86.8204	457.110	369.139	3.7214
238.00	69.0310	394.504	324.558	3.4863	298.00	87.1197	458.166	369.892	3.7249
239.00	69.3353	395.572	325.318	3.4908	299.00	87.4190	459.221	370.644	3.7284
240.00	69.6395	396.641	326.078	3.4953	300.00	87.7182	460.276	371.396	3.7320

15.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
64.00	1.1530	2.9712	1.2188	.0194
65.00	1.1583	5.0150	3.2545	.0511
66.00	1.1637	7.0635	5.2947	.0824
67.00	1.1693	9.1153	7.3382	.1132
68.00	1.1749	11.1695	9.3838	.1437
69.00	1.1807	13.2252	11.4307	.1737
70.00	1.1866	15.2814	13.4780	.2033
71.00	1.1926	17.3374	15.5249	.2324
72.00	1.1987	19.3925	17.5707	.2612
73.00	1.2049	21.4463	19.6150	.2895
74.00	1.2113	23.4982	21.6573	.3174
75.00	1.2177	25.5481	23.6973	.3449
76.00	1.2243	27.5958	25.7349	.3721
77.00	1.2311	29.6412	27.7701	.3988
78.00	1.2380	31.6844	29.8029	.4252
79.00	1.2450	33.7257	31.8335	.4512
80.00	1.2522	35.7655	33.8624	.4768
81.00	1.2595	37.8043	35.8900	.5021
82.00	1.2669	39.8426	37.9170	.5272
83.00	1.2746	41.8812	39.9440	.5519
84.00	1.2824	43.9211	41.9720	.5763
85.00	1.2904	45.9632	44.0019	.6005
86.00	1.2986	48.0085	46.0348	.6244
87.00	1.3070	50.0584	48.0720	.6481
88.00	1.3156	52.1140	50.1145	.6716
89.00	1.3244	54.1769	52.1640	.6949
90.00	1.3334	56.2484	54.2217	.7180
91.00	1.3427	58.3301	56.2893	.7410
92.00	1.3523	60.4236	58.3683	.7639
93.00	1.3621	62.5307	60.4604	.7867
94.00	1.3723	64.6530	62.5673	.8094
95.00	1.3827	66.7924	64.6909	.8320
96.00	1.3935	68.9509	66.8329	.8546
97.00	1.4047	71.1302	68.9952	.8772
98.00	1.4163	73.3326	71.1800	.8998
99.00	1.4283	75.5600	73.3891	.9224
100.00	1.4408	77.8148	75.6249	.9451
101.00	1.4538	80.0994	77.8897	.9678
102.00	1.4674	82.4162	80.1859	.9906
103.00	1.4817	84.7682	82.5163	1.0136
104.00	1.4966	87.1586	84.8840	1.0367
105.00	1.5123	89.5908	87.2923	1.0600
106.00	1.5288	92.0424	89.7188	1.0832
107.00	1.5464	94.5356	92.1853	1.1066
108.00	1.5651	97.0760	94.6972	1.1302
109.00	1.5851	99.6706	97.2615	1.1542
110.00	1.6067	102.329	99.8868	1.1785
• 110.610	1.6207	103.999	101.535	1.1936
• 110.610	15.3537	236.987	213.652	2.3959
111.00	15.5093	237.747	214.175	2.4028
112.00	15.8974	239.645	215.483	2.4198
113.00	16.2716	241.476	216.745	2.4361
114.00	16.6337	243.251	217.970	2.4517
115.00	16.9853	244.976	219.161	2.4668
116.00	17.3277	246.659	220.323	2.4814
117.00	17.6619	248.303	221.460	2.4955
118.00	17.9887	249.914	222.574	2.5092
119.00	18.3090	251.495	223.667	2.5225
120.00	18.6232	253.047	224.743	2.5355
121.00	18.9320	254.575	225.801	2.5482
122.00	19.2358	256.081	226.845	2.5606
123.00	19.5349	257.565	227.874	2.5727
124.00	19.8299	259.030	228.891	2.5846
125.00	20.1208	260.478	229.897	2.5962
126.00	20.4082	261.909	230.891	2.6076
127.00	20.6921	263.325	231.875	2.6188
128.00	20.9728	264.726	232.850	2.6298
129.00	21.2506	266.115	233.817	2.6406
130.00	21.5255	267.491	234.775	2.6512
131.00	21.7978	268.855	235.725	2.6617
132.00	22.0677	270.209	236.669	2.6720
133.00	22.3351	271.552	237.605	2.6821
134.00	22.6004	272.885	238.535	2.6921
135.00	22.8635	274.209	239.459	2.7019
136.00	23.1247	275.524	240.378	2.7116
137.00	23.3839	276.831	241.291	2.7212
138.00	23.6414	278.130	242.199	2.7307
139.00	23.8971	279.422	243.102	2.7400
140.00	24.1512	280.707	244.000	2.7492
141.00	24.4037	281.984	244.894	2.7583
142.00	24.6547	283.256	245.784	2.7673
143.00	24.9043	284.521	246.669	2.7762
144.00	25.1525	285.780	247.551	2.7849
145.00	25.3994	287.033	248.429	2.7936
146.00	25.6450	288.281	249.304	2.8022
147.00	25.8894	289.524	250.175	2.8107
148.00	26.1327	290.762	251.043	2.8191
149.00	26.3748	291.995	251.908	2.8274
150.00	26.6159	293.223	252.770	2.8356
151.00	26.8559	294.447	253.629	2.8437
152.00	27.0949	295.666	254.486	2.8518
153.00	27.3329	296.882	255.339	2.8597
154.00	27.5700	298.093	256.190	2.8676
155.00	27.8062	299.301	257.039	2.8754
156.00	28.0415	300.505	257.885	2.8832
157.00	28.2760	301.705	258.729	2.8908
158.00	28.5097	302.902	259.571	2.8984
159.00	28.7426	304.096	260.411	2.9060
160.00	28.9747	305.286	261.248	2.9134
161.00	29.2061	306.473	262.084	2.9208
162.00	29.4368	307.658	262.917	2.9282
163.00	29.6667	308.839	263.749	2.9354
164.00	29.8961	310.017	264.579	2.9426
165.00	30.1247	311.193	265.407	2.9498
166.00	30.3527	312.366	266.233	2.9569
167.00	30.5801	313.536	267.058	2.9639
168.00	30.8070	314.704	267.881	2.9709
169.00	31.0332	315.869	268.703	2.9778
170.00	31.2589	317.032	269.523	2.9847
171.00	31.4840	318.193	270.342	2.9915
172.00	31.7086	319.352	271.159	2.9982
173.00	31.9326	320.508	271.974	3.0049
174.00	32.1562	321.662	272.789	3.0116
175.00	32.3793	322.814	273.602	3.0182
176.00	32.6019	323.964	274.414	3.0247
177.00	32.8240	325.113	275.224	3.0312
178.00	33.0457	326.259	276.034	3.0377
179.00	33.2669	327.403	276.842	3.0441
180.00	33.4877	328.546	277.649	3.0505

• PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	33.7081	329.687	278.455	3.0568	241.00	46.4242	396.026	325.467	3.3737
182.00	33.9281	330.826	279.259	3.0631	242.00	46.6305	397.109	326.236	3.3782
183.00	34.1477	331.963	280.063	3.0693	243.00	46.8367	398.191	327.005	3.3827
184.00	34.3668	333.099	280.866	3.0755	244.00	47.0428	399.272	327.773	3.3871
185.00	34.5856	334.233	281.667	3.0816	245.00	47.2488	400.353	328.541	3.3915
186.00	34.8041	335.366	282.468	3.0877	246.00	47.4546	401.434	329.309	3.3959
187.00	35.0221	336.497	283.268	3.0938	247.00	47.6604	402.514	330.076	3.4003
188.00	35.2399	337.627	284.067	3.0998	248.00	47.8660	403.594	330.843	3.4047
189.00	35.4572	338.755	284.864	3.1058	249.00	48.0715	404.673	331.610	3.4090
190.00	35.6743	339.882	285.661	3.1118	250.00	48.2769	405.752	332.377	3.4133
191.00	35.8910	341.007	286.457	3.1177	251.00	48.4822	406.830	333.143	3.4176
192.00	36.1073	342.131	287.253	3.1235	252.00	48.6874	407.908	333.909	3.4219
193.00	36.3234	343.254	288.047	3.1294	253.00	48.8925	408.985	334.675	3.4262
194.00	36.5391	344.375	288.841	3.1352	254.00	49.0975	410.062	335.440	3.4305
195.00	36.7546	345.496	289.633	3.1409	255.00	49.3023	411.139	336.206	3.4347
196.00	36.9697	346.615	290.425	3.1467	256.00	49.5071	412.215	336.971	3.4389
197.00	37.1846	347.732	291.217	3.1523	257.00	49.7118	413.291	337.735	3.4431
198.00	37.3992	348.849	292.007	3.1580	258.00	49.9164	414.366	338.500	3.4473
199.00	37.6135	349.965	292.797	3.1636	259.00	50.1209	415.441	339.264	3.4514
200.00	37.8275	351.079	293.586	3.1692	260.00	50.3253	416.516	340.028	3.4556
201.00	38.0413	352.192	294.374	3.1748	261.00	50.5296	417.590	340.792	3.4597
202.00	38.2548	353.304	295.162	3.1803	262.00	50.7338	418.664	341.555	3.4638
203.00	38.4681	354.415	295.949	3.1858	263.00	50.9379	419.738	342.319	3.4679
204.00	38.6811	355.525	296.735	3.1912	264.00	51.1419	420.811	343.082	3.4720
205.00	38.8938	356.634	297.521	3.1966	265.00	51.3459	421.884	343.845	3.4760
206.00	39.1063	357.742	298.306	3.2020	266.00	51.5497	422.956	344.607	3.4801
207.00	39.3186	358.849	299.090	3.2074	267.00	51.7535	424.029	345.370	3.4841
208.00	39.5307	359.956	299.874	3.2127	268.00	51.9572	425.100	346.132	3.4881
209.00	39.7425	361.061	300.657	3.2180	269.00	52.1608	426.172	346.894	3.4921
210.00	39.9541	362.165	301.440	3.2233	270.00	52.3643	427.243	347.656	3.4960
211.00	40.1655	363.268	302.222	3.2285	271.00	52.5678	428.314	348.418	3.5000
212.00	40.3767	364.371	303.003	3.2337	272.00	52.7712	429.384	349.179	3.5040
213.00	40.5877	365.473	303.784	3.2389	273.00	52.9745	430.455	349.940	3.5079
214.00	40.7984	366.573	304.565	3.2441	274.00	53.1777	431.525	350.701	3.5118
215.00	41.0090	367.673	305.345	3.2492	275.00	53.3808	432.594	351.462	3.5157
216.00	41.2194	368.772	306.124	3.2543	276.00	53.5839	433.664	352.223	3.5196
217.00	41.4296	369.871	306.903	3.2594	277.00	53.7869	434.733	352.984	3.5234
218.00	41.6396	370.968	307.682	3.2644	278.00	53.9898	435.801	353.744	3.5273
219.00	41.8494	372.065	308.459	3.2695	279.00	54.1926	436.870	354.504	3.5311
220.00	42.0590	373.161	309.237	3.2744	280.00	54.3954	437.938	355.264	3.5349
221.00	42.2684	374.256	310.014	3.2794	281.00	54.5981	439.006	356.024	3.5388
222.00	42.4777	375.351	310.790	3.2844	282.00	54.8007	440.074	356.784	3.5425
223.00	42.6868	376.445	311.566	3.2893	283.00	55.0033	441.141	357.543	3.5463
224.00	42.8957	377.538	312.342	3.2942	284.00	55.2058	442.208	358.302	3.5501
225.00	43.1045	378.631	313.117	3.2990	285.00	55.4082	443.275	359.062	3.5538
226.00	43.3131	379.722	313.892	3.3039	286.00	55.6106	444.342	359.821	3.5576
227.00	43.5215	380.814	314.666	3.3087	287.00	55.8129	445.408	360.580	3.5613
228.00	43.7298	381.904	315.440	3.3135	288.00	56.0151	446.474	361.338	3.5650
229.00	43.9379	382.994	316.214	3.3183	289.00	56.2173	447.540	362.097	3.5687
230.00	44.1459	384.083	316.987	3.3230	290.00	56.4194	448.606	362.856	3.5724
231.00	44.3537	385.172	317.760	3.3277	291.00	56.6215	449.671	363.614	3.5760
232.00	44.5614	386.260	318.532	3.3324	292.00	56.8235	450.736	364.372	3.5797
233.00	44.7689	387.347	319.304	3.3371	293.00	57.0254	451.801	365.130	3.5833
234.00	44.9763	388.434	320.076	3.3418	294.00	57.2273	452.866	365.888	3.5870
235.00	45.1835	389.520	320.847	3.3464	295.00	57.4291	453.931	366.646	3.5906
236.00	45.3906	390.606	321.618	3.3510	296.00	57.6309	454.995	367.403	3.5942
237.00	45.5976	391.691	322.389	3.3556	297.00	57.8326	456.059	368.161	3.5978
238.00	45.8044	392.776	323.159	3.3602	298.00	58.0342	457.123	368.918	3.6014
239.00	46.0112	393.860	323.929	3.3647	299.00	58.2358	458.187	369.676	3.6049
240.00	46.2177	394.943	324.698	3.3692	300.00	58.4373	459.250	370.433	3.6085

20.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
64.00	1.1520	3.3858	1.0512	.0168
65.00	1.1573	5.4258	3.0806	.0484
66.00	1.1627	7.4705	5.1143	.0796
67.00	1.1682	9.5185	7.1512	.1104
68.00	1.1738	11.5688	9.1902	.1408
69.00	1.1795	13.6205	11.2303	.1707
70.00	1.1853	15.6727	13.2707	.2003
71.00	1.1912	17.7245	15.3105	.2294
72.00	1.1973	19.7754	17.3491	.2581
73.00	1.2035	21.8247	19.3859	.2863
74.00	1.2098	23.8721	21.4206	.3142
75.00	1.2162	25.9173	23.4527	.3416
76.00	1.2227	27.9600	25.4822	.3687
77.00	1.2294	30.0003	27.5089	.3954
78.00	1.2362	32.0381	29.5330	.4217
79.00	1.2431	34.0738	31.5547	.4476
80.00	1.2502	36.1077	33.5742	.4732
81.00	1.2574	38.1403	35.5921	.4984
82.00	1.2648	40.1720	37.6089	.5234
83.00	1.2723	42.2038	39.6254	.5480
84.00	1.2800	44.2363	41.6423	.5723
85.00	1.2879	46.2707	43.6607	.5964
86.00	1.2960	48.3078	45.6815	.6202
87.00	1.3042	50.3489	47.7059	.6438
88.00	1.3127	52.3952	49.7351	.6672
89.00	1.3213	54.4481	51.7704	.6904
90.00	1.3302	56.5089	53.8133	.7134
91.00	1.3393	58.5792	55.8651	.7363
92.00	1.3487	60.6605	57.9274	.7591
93.00	1.3583	62.7543	60.0017	.7817
94.00	1.3682	64.8624	62.0897	.8042
95.00	1.3785	66.9864	64.1930	.8267
96.00	1.3890	69.1281	66.3133	.8491
97.00	1.3999	71.2892	68.4524	.8715
98.00	1.4111	73.4717	70.6120	.8939
99.00	1.4228	75.6774	72.7941	.9163
100.00	1.4349	77.9083	75.0005	.9387
101.00	1.4475	80.1664	77.2332	.9612
102.00	1.4605	82.4540	79.4943	.9837
103.00	1.4742	84.7735	81.7861	1.0064
104.00	1.4885	87.1274	84.1110	1.0291
105.00	1.5034	89.5186	86.4719	1.0520
106.00	1.5192	91.9237	88.8452	1.0748
107.00	1.5358	94.3637	91.2515	1.0977
108.00	1.5533	96.8428	93.6950	1.1208
109.00	1.5720	99.3661	96.1804	1.1440
110.00	1.5920	101.940	98.7138	1.1676
111.00	1.6134	104.573	101.303	1.1914
112.00	1.6366	107.279	103.962	1.2157
113.00	1.6620	110.059	106.691	1.2405
114.00	1.6899	112.951	109.526	1.2660
115.00	1.7211	115.967	112.479	1.2924
• 115.823	1.7499	118.571	115.025	1.3150
• 115.823	10.8421	232.557	210.585	2.2991
116.00	10.9122	233.019	210.906	2.3031
117.00	11.2912	235.519	212.637	2.3246
118.00	11.6455	237.852	214.252	2.3444
119.00	11.9804	240.055	215.777	2.3630
120.00	12.2995	242.153	217.228	2.3806
121.00	12.6053	244.164	218.620	2.3973
122.00	12.8999	246.102	219.960	2.4132
123.00	13.1848	247.976	221.257	2.4285
124.00	13.4613	249.796	222.517	2.4432
125.00	13.7304	251.568	223.743	2.4575
126.00	13.9928	253.297	224.941	2.4713
127.00	14.2493	254.989	226.113	2.4846
128.00	14.5004	256.646	227.262	2.4976
129.00	14.7466	258.273	228.389	2.5103
130.00	14.9884	259.872	229.498	2.5226
131.00	15.2261	261.445	230.590	2.5347
132.00	15.4601	262.995	231.666	2.5465
133.00	15.6906	264.524	232.727	2.5580
134.00	15.9179	266.032	233.775	2.5693
135.00	16.1421	267.522	234.810	2.5804
136.00	16.3636	268.995	235.834	2.5913
137.00	16.5825	270.451	236.847	2.6019
138.00	16.7989	271.893	237.850	2.6124
139.00	17.0130	273.321	238.844	2.6227
140.00	17.2250	274.735	239.829	2.6329
141.00	17.4348	276.137	240.806	2.6428
142.00	17.6428	277.528	241.775	2.6527
143.00	17.8489	278.907	242.736	2.6623
144.00	18.0533	280.276	243.691	2.6719
145.00	18.2560	281.635	244.639	2.6813
146.00	18.4572	282.985	245.581	2.6906
147.00	18.6568	284.325	246.517	2.6997
148.00	18.8550	285.658	247.448	2.7087
149.00	19.0519	286.982	248.373	2.7177
150.00	19.2475	288.298	249.293	2.7265
151.00	19.4418	289.607	250.208	2.7352
152.00	19.6349	290.909	251.119	2.7438
153.00	19.8269	292.204	252.025	2.7523
154.00	20.0178	293.493	252.927	2.7606
155.00	20.2076	294.775	253.824	2.7689
156.00	20.3964	296.052	254.718	2.7772
157.00	20.5843	297.322	255.609	2.7853
158.00	20.7712	298.588	256.495	2.7933
159.00	20.9572	299.848	257.378	2.8013
160.00	21.1423	301.103	258.258	2.8091
161.00	21.3266	302.353	259.135	2.8169
162.00	21.5101	303.599	260.008	2.8246
163.00	21.6928	304.839	260.879	2.8323
164.00	21.8748	306.076	261.747	2.8398
165.00	22.0560	307.308	262.612	2.8473
166.00	22.2365	308.536	263.474	2.8547
167.00	22.4163	309.760	264.334	2.8621
168.00	22.5955	310.981	265.191	2.8694
169.00	22.7740	312.198	266.046	2.8766
170.00	22.9519	313.411	266.899	2.8838
171.00	23.1292	314.620	267.749	2.8909
172.00	23.3060	315.827	268.597	2.8979
173.00	23.4821	317.030	269.443	2.9049
174.00	23.6577	318.229	270.287	2.9118
175.00	23.8328	319.426	271.129	2.9186
176.00	24.0073	320.620	271.969	2.9254
177.00	24.1814	321.811	272.807	2.9322
178.00	24.3549	322.999	273.644	2.9389
179.00	24.5280	324.184	274.479	2.9455
180.00	24.7006	325.367	275.311	2.9521

• PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	24.8728	326.547	276.143	2.9586	241.00	34.6703	394.349	324.089	3.2827
182.00	25.0445	327.725	276.972	2.9651	242.00	34.8278	395.446	324.868	3.2873
183.00	25.2158	328.900	277.800	2.9716	243.00	34.9852	396.543	325.646	3.2918
184.00	25.3867	330.073	278.627	2.9780	244.00	35.1424	397.640	326.424	3.2963
185.00	25.5572	331.244	279.452	2.9843	245.00	35.2996	398.735	327.201	3.3008
186.00	25.7272	332.412	280.276	2.9906	246.00	35.4566	399.831	327.978	3.3052
187.00	25.8969	333.578	281.098	2.9969	247.00	35.6135	400.925	328.754	3.3097
188.00	26.0662	334.742	281.919	3.0031	248.00	35.7703	402.019	329.530	3.3141
189.00	26.2352	335.904	282.738	3.0092	249.00	35.9270	403.112	330.306	3.3185
190.00	26.4038	337.064	283.556	3.0154	250.00	36.0836	404.204	331.081	3.3229
191.00	26.5720	338.221	284.373	3.0214	251.00	36.2401	405.296	331.856	3.3272
192.00	26.7399	339.377	285.189	3.0275	252.00	36.3964	406.388	332.631	3.3316
193.00	26.9075	340.531	286.003	3.0335	253.00	36.5527	407.479	333.405	3.3359
194.00	27.0747	341.684	286.817	3.0394	254.00	36.7088	408.569	334.178	3.3402
195.00	27.2416	342.834	287.629	3.0453	255.00	36.8649	409.658	334.952	3.3445
196.00	27.4083	343.983	288.440	3.0512	256.00	37.0208	410.748	335.725	3.3487
197.00	27.5746	345.130	289.250	3.0570	257.00	37.1767	411.836	336.498	3.3530
198.00	27.7406	346.275	290.059	3.0628	258.00	37.3324	412.924	337.270	3.3572
199.00	27.9063	347.418	290.866	3.0686	259.00	37.4881	414.012	338.042	3.3614
200.00	28.0718	348.560	291.673	3.0743	260.00	37.6436	415.099	338.814	3.3656
201.00	28.2369	349.701	292.479	3.0800	261.00	37.7991	416.185	339.585	3.3698
202.00	28.4018	350.840	293.284	3.0857	262.00	37.9545	417.271	340.357	3.3739
203.00	28.5664	351.977	294.087	3.0913	263.00	38.1098	418.357	341.127	3.3780
204.00	28.7308	353.113	294.890	3.0969	264.00	38.2650	419.442	341.898	3.3822
205.00	28.8949	354.248	295.692	3.1024	265.00	38.4201	420.526	342.668	3.3863
206.00	29.0588	355.381	296.493	3.1079	266.00	38.5751	421.610	343.438	3.3903
207.00	29.2224	356.513	297.294	3.1134	267.00	38.7300	422.694	344.208	3.3944
208.00	29.3858	357.643	298.093	3.1189	268.00	38.8849	423.777	344.977	3.3985
209.00	29.5490	358.772	298.892	3.1243	269.00	39.0396	424.860	345.746	3.4025
210.00	29.7119	359.900	299.689	3.1297	270.00	39.1943	425.942	346.515	3.4065
211.00	29.8746	361.027	300.486	3.1350	271.00	39.3489	427.024	347.283	3.4105
212.00	30.0371	362.152	301.282	3.1403	272.00	39.5034	428.105	348.051	3.4145
213.00	30.1993	363.276	302.078	3.1456	273.00	39.6579	429.186	348.819	3.4185
214.00	30.3614	364.399	302.872	3.1509	274.00	39.8122	430.267	349.587	3.4224
215.00	30.5232	365.521	303.666	3.1561	275.00	39.9665	431.347	350.355	3.4263
216.00	30.6849	366.642	304.459	3.1613	276.00	40.1207	432.426	351.122	3.4303
217.00	30.8463	367.762	305.252	3.1665	277.00	40.2749	433.506	351.889	3.4342
218.00	31.0076	368.880	306.043	3.1716	278.00	40.4290	434.585	352.656	3.4381
219.00	31.1687	369.998	306.834	3.1767	279.00	40.5830	435.663	353.422	3.4419
220.00	31.3295	371.114	307.625	3.1818	280.00	40.7369	436.741	354.188	3.4458
221.00	31.4902	372.229	308.414	3.1869	281.00	40.8907	437.819	354.954	3.4496
222.00	31.6507	373.344	309.204	3.1919	282.00	41.0445	438.897	355.720	3.4535
223.00	31.8111	374.457	309.992	3.1969	283.00	41.1982	439.974	356.486	3.4573
224.00	31.9712	375.569	310.780	3.2019	284.00	41.3519	441.051	357.251	3.4611
225.00	32.1312	376.681	311.567	3.2068	285.00	41.5055	442.127	358.016	3.4649
226.00	32.2911	377.791	312.354	3.2118	286.00	41.6590	443.203	358.781	3.4686
227.00	32.4507	378.901	313.140	3.2167	287.00	41.8125	444.279	359.546	3.4724
228.00	32.6102	380.010	313.925	3.2215	288.00	41.9658	445.354	360.310	3.4761
229.00	32.7696	381.118	314.710	3.2264	289.00	42.1192	446.429	361.075	3.4798
230.00	32.9287	382.225	315.495	3.2312	290.00	42.2724	447.504	361.839	3.4836
231.00	33.0878	383.331	316.279	3.2360	291.00	42.4256	448.578	362.603	3.4873
232.00	33.2467	384.436	317.062	3.2408	292.00	42.5788	449.652	363.366	3.4909
233.00	33.4054	385.541	317.845	3.2455	293.00	42.7319	450.726	364.130	3.4946
234.00	33.5640	386.644	318.627	3.2503	294.00	42.8849	451.799	364.893	3.4983
235.00	33.7224	387.747	319.409	3.2550	295.00	43.0379	452.873	365.656	3.5019
236.00	33.8807	388.849	320.190	3.2597	296.00	43.1908	453.945	366.419	3.5055
237.00	34.0389	389.951	320.971	3.2643	297.00	43.3436	455.018	367.182	3.5092
238.00	34.1969	391.051	321.751	3.2689	298.00	43.4964	456.090	367.945	3.5128
239.00	34.3548	392.151	322.531	3.2736	299.00	43.6492	457.162	368.707	3.5164
240.00	34.5126	393.250	323.310	3.2781	300.00	43.8018	458.234	369.470	3.5199

25.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
* 120.161	1.9125	132.290	127.445	1.4238
* 120.161	7.9379	225.741	205.634	2.2015
121.00	8.3038	228.877	207.842	2.2275
122.00	8.6875	232.134	210.128	2.2543
64.00	1.1510	3.8011	.8853	.0141
65.00	1.1563	5.8374	2.9085	.0457
66.00	1.1616	7.8783	4.9359	.0769
67.00	1.1670	9.9226	6.9663	.1076
68.00	1.1726	11.9691	8.9988	.1379
69.00	1.1783	14.0169	11.0323	.1678
70.00	1.1840	16.0651	13.0658	.1973
123.00	9.0328	235.046	212.165	2.2781
124.00	9.3508	237.714	214.027	2.2997
125.00	9.6479	240.198	215.758	2.3196
126.00	9.9285	242.537	217.387	2.3383
127.00	10.1957	244.759	218.933	2.3558
128.00	10.4515	246.885	220.410	2.3725
129.00	10.6978	248.930	221.831	2.3884
130.00	10.9358	250.904	223.202	2.4037
71.00	1.1899	18.1129	15.0987	.2263
72.00	1.1959	20.1596	17.1302	.2550
73.00	1.2020	22.2047	19.1597	.2832
74.00	1.2083	24.2476	21.1869	.3110
75.00	1.2146	26.2882	23.2114	.3384
76.00	1.2211	28.3261	25.2329	.3654
77.00	1.2277	30.3614	27.2515	.3920
78.00	1.2344	32.3941	29.2671	.4182
79.00	1.2413	34.4243	31.2800	.4441
80.00	1.2483	36.4525	33.2905	.4696
131.00	11.1666	252.817	224.531	2.4183
132.00	11.3910	254.677	225.822	2.4325
133.00	11.6098	256.490	227.081	2.4461
134.00	11.8234	258.261	228.311	2.4594
135.00	12.0324	259.993	229.514	2.4723
136.00	12.2372	261.692	230.694	2.4848
137.00	12.4381	263.359	231.852	2.4970
138.00	12.6356	264.998	232.991	2.5090
139.00	12.8298	266.611	234.112	2.5206
140.00	13.0210	268.200	235.216	2.5320
81.00	1.2554	38.4791	35.2990	.4947
82.00	1.2627	40.5045	37.3060	.5196
83.00	1.2701	42.5296	39.3123	.5441
84.00	1.2777	44.5552	41.3186	.5684
85.00	1.2855	46.5821	43.3258	.5924
86.00	1.2934	48.6113	45.3349	.6161
87.00	1.3015	50.6441	47.3471	.6396
88.00	1.3098	52.6815	49.3635	.6629
89.00	1.3184	54.7249	51.3854	.6860
90.00	1.3271	56.7757	53.4140	.7089
141.00	13.2095	269.767	236.306	2.5432
142.00	13.3953	271.313	237.381	2.5541
143.00	13.5788	272.840	238.443	2.5648
144.00	13.7599	274.349	239.493	2.5753
145.00	13.9390	275.841	240.532	2.5856
146.00	14.1160	277.318	241.560	2.5958
147.00	14.2912	278.780	242.579	2.6058
148.00	14.4646	280.228	243.588	2.6156
149.00	14.6363	281.663	244.588	2.6252
150.00	14.8064	283.086	245.580	2.6348
91.00	1.3360	58.8351	55.4508	.7317
92.00	1.3452	60.9048	57.4972	.7543
93.00	1.3546	62.9862	59.5547	.7768
94.00	1.3643	65.0809	61.6249	.7992
95.00	1.3743	67.1904	63.7091	.8215
96.00	1.3846	69.3165	65.8092	.8438
97.00	1.3952	71.4607	67.9265	.8660
98.00	1.4061	73.6248	70.0628	.8882
99.00	1.4175	75.8104	72.2198	.9104
100.00	1.4292	78.0193	74.3990	.9326
151.00	14.9750	284.497	246.564	2.6441
152.00	15.1421	285.897	247.541	2.6534
153.00	15.3079	287.287	248.510	2.6625
154.00	15.4724	288.667	249.473	2.6715
155.00	15.6357	290.037	250.430	2.6804
156.00	15.7977	291.398	251.380	2.6891
157.00	15.9587	292.750	252.325	2.6977
158.00	16.1185	294.095	253.265	2.7063
159.00	16.2773	295.431	254.199	2.7147
160.00	16.4351	296.760	255.128	2.7230
101.00	1.4414	80.2534	76.6023	.9548
102.00	1.4540	82.5146	78.8314	.9771
103.00	1.4671	84.8047	81.0883	.9994
104.00	1.4808	87.1261	83.3749	1.0219
105.00	1.4952	89.4809	85.6935	1.0444
106.00	1.5102	91.8452	88.0198	1.0668
107.00	1.5259	94.2390	90.3737	1.0893
108.00	1.5425	96.6656	92.7582	1.1119
109.00	1.5601	99.1286	95.1767	1.1346
110.00	1.5787	101.633	97.6335	1.1575
161.00	16.5920	298.082	256.052	2.7313
162.00	16.7479	299.396	256.972	2.7394
163.00	16.9029	300.705	257.887	2.7475
164.00	17.0571	302.006	258.798	2.7554
165.00	17.2105	303.302	259.706	2.7633
166.00	17.3631	304.592	260.609	2.7711
167.00	17.5149	305.876	261.508	2.7788
168.00	17.6660	307.154	262.404	2.7864
169.00	17.8164	308.428	263.296	2.7940
170.00	17.9661	309.696	264.186	2.8015
111.00	1.5986	104.183	100.134	1.1806
112.00	1.6199	106.793	102.689	1.2040
113.00	1.6429	109.456	105.294	1.2277
114.00	1.6679	112.203	107.978	1.2520
115.00	1.6953	115.037	110.743	1.2768
116.00	1.7257	117.980	113.609	1.3023
117.00	1.7599	121.044	116.586	1.3287
118.00	1.7991	124.280	119.722	1.3563
119.00	1.8453	127.763	123.088	1.3858
120.00	1.9020	131.614	126.796	1.4181
171.00	18.1151	310.959	265.071	2.8089
172.00	18.2635	312.218	265.954	2.8162
173.00	18.4113	313.472	266.834	2.8235
174.00	18.5584	314.721	267.711	2.8307
175.00	18.7050	315.967	268.584	2.8378
176.00	18.8511	317.208	269.456	2.8449
177.00	18.9965	318.445	270.324	2.8519
178.00	19.1415	319.678	271.191	2.8589
179.00	19.2859	320.908	272.054	2.8658
180.00	19.4299	322.134	272.915	2.8726

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	19.5733	323.356	273.774	2.8794	241.00	27.6228	392.677	322.705	3.2108
182.00	19.7163	324.575	274.631	2.8861	242.00	27.7511	393.790	323.493	3.2155
183.00	19.8589	325.790	275.486	2.8927	243.00	27.8792	394.902	324.281	3.2200
184.00	20.0009	327.003	276.338	2.8993	244.00	28.0071	396.014	325.068	3.2246
185.00	20.1426	328.212	277.188	2.9059	245.00	28.1350	397.124	325.855	3.2292
186.00	20.2838	329.418	278.037	2.9124	246.00	28.2627	398.234	326.641	3.2337
187.00	20.4246	330.621	278.883	2.9189	247.00	28.3903	399.343	327.427	3.2382
188.00	20.5651	331.821	279.728	2.9253	248.00	28.5178	400.451	328.212	3.2426
189.00	20.7051	333.019	280.570	2.9316	249.00	28.6452	401.558	328.997	3.2471
190.00	20.8448	334.214	281.411	2.9379	250.00	28.7725	402.665	329.781	3.2515
191.00	20.9840	335.406	282.251	2.9442	251.00	28.8996	403.771	330.564	3.2560
192.00	21.1230	336.595	283.088	2.9504	252.00	29.0267	404.876	331.348	3.2603
193.00	21.2616	337.782	283.924	2.9565	253.00	29.1536	405.980	332.130	3.2647
194.00	21.3998	338.966	284.758	2.9627	254.00	29.2804	407.083	332.912	3.2691
195.00	21.5377	340.149	285.591	2.9687	255.00	29.4072	408.186	333.694	3.2734
196.00	21.6753	341.328	286.422	2.9748	256.00	29.5338	409.288	334.476	3.2777
197.00	21.8126	342.506	287.252	2.9808	257.00	29.6603	410.390	335.257	3.2820
198.00	21.9495	343.681	288.080	2.9867	258.00	29.7868	411.491	336.037	3.2863
199.00	22.0862	344.854	288.907	2.9926	259.00	29.9131	412.591	336.817	3.2905
200.00	22.2225	346.025	289.733	2.9985	260.00	30.0394	413.690	337.597	3.2948
201.00	22.3586	347.194	290.557	3.0043	261.00	30.1655	414.789	338.376	3.2990
202.00	22.4944	348.361	291.380	3.0101	262.00	30.2916	415.887	339.155	3.3032
203.00	22.6299	349.525	292.201	3.0159	263.00	30.4175	416.984	339.933	3.3074
204.00	22.7651	350.688	293.021	3.0216	264.00	30.5434	418.081	340.711	3.3115
205.00	22.9001	351.849	293.841	3.0273	265.00	30.6692	419.178	341.489	3.3157
206.00	23.0348	353.009	294.659	3.0329	266.00	30.7949	420.273	342.266	3.3198
207.00	23.1693	354.166	295.475	3.0385	267.00	30.9205	421.368	343.043	3.3239
208.00	23.3035	355.322	296.291	3.0441	268.00	31.0460	422.463	343.820	3.3280
209.00	23.4375	356.476	297.105	3.0496	269.00	31.1715	423.557	344.596	3.3321
210.00	23.5713	357.628	297.919	3.0551	270.00	31.2968	424.650	345.372	3.3361
211.00	23.7048	358.778	298.731	3.0606	271.00	31.4221	425.743	346.147	3.3402
212.00	23.8381	359.927	299.543	3.0660	272.00	31.5473	426.835	346.922	3.3442
213.00	23.9711	361.075	300.353	3.0714	273.00	31.6724	427.927	347.697	3.3482
214.00	24.1040	362.221	301.162	3.0768	274.00	31.7975	429.018	348.471	3.3522
215.00	24.2366	363.365	301.971	3.0821	275.00	31.9224	430.109	349.246	3.3562
216.00	24.3691	364.508	302.778	3.0874	276.00	32.0473	431.199	350.019	3.3601
217.00	24.5013	365.649	303.585	3.0927	277.00	32.1721	432.289	350.793	3.3641
218.00	24.6333	366.789	304.390	3.0979	278.00	32.2969	433.378	351.566	3.3680
219.00	24.7652	367.928	305.195	3.1031	279.00	32.4216	434.467	352.339	3.3719
220.00	24.8968	369.065	305.999	3.1083	280.00	32.5462	435.555	353.111	3.3758
221.00	25.0283	370.201	306.802	3.1135	281.00	32.6707	436.642	353.884	3.3797
222.00	25.1595	371.336	307.604	3.1186	282.00	32.7951	437.730	354.656	3.3835
223.00	25.2906	372.469	308.405	3.1237	283.00	32.9195	438.817	355.427	3.3874
224.00	25.4215	373.601	309.206	3.1288	284.00	33.0439	439.903	356.199	3.3912
225.00	25.5523	374.732	310.005	3.1338	285.00	33.1681	440.989	356.970	3.3950
226.00	25.6828	375.862	310.804	3.1388	286.00	33.2923	442.074	357.741	3.3988
227.00	25.8132	376.990	311.602	3.1438	287.00	33.4164	443.159	358.511	3.4026
228.00	25.9435	378.118	312.400	3.1487	288.00	33.5405	444.244	359.282	3.4064
229.00	26.0735	379.244	313.196	3.1537	289.00	33.6645	445.328	360.052	3.4102
230.00	26.2035	380.369	313.992	3.1586	290.00	33.7884	446.412	360.822	3.4139
231.00	26.3332	381.493	314.788	3.1635	291.00	33.9123	447.495	361.591	3.4176
232.00	26.4628	382.616	315.582	3.1683	292.00	34.0361	448.578	362.360	3.4213
233.00	26.5923	383.738	316.376	3.1731	293.00	34.1599	449.661	363.129	3.4250
234.00	26.7216	384.858	317.169	3.1779	294.00	34.2836	450.743	363.898	3.4287
235.00	26.8508	385.978	317.962	3.1827	295.00	34.4072	451.825	364.667	3.4324
236.00	26.9798	387.097	318.754	3.1875	296.00	34.5308	452.906	365.435	3.4361
237.00	27.1087	388.215	319.545	3.1922	297.00	34.6543	453.987	366.203	3.4397
238.00	27.2374	389.332	320.336	3.1969	298.00	34.7778	455.068	366.971	3.4433
239.00	27.3660	390.448	321.126	3.2016	299.00	34.9012	456.148	367.739	3.4470
240.00	27.4945	391.563	321.916	3.2062	300.00	35.0246	457.228	368.506	3.4506

30.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
64.00	1.1501	4.2171	.7212	.0115
65.00	1.1552	6.2498	2.7382	.0431
66.00	1.1605	8.2871	4.7593	.0742
67.00	1.1659	10.3276	6.7835	.1048
68.00	1.1714	12.3704	8.8095	.1351
69.00	1.1771	14.4144	10.8365	.1649
70.00	1.1828	16.4587	12.8634	.1944
71.00	1.1886	18.5026	14.8894	.2234
72.00	1.1946	20.5452	16.9140	.2519
73.00	1.2006	22.5860	18.9364	.2801
74.00	1.2068	24.6247	20.9563	.3078
75.00	1.2131	26.6607	22.9732	.3351
76.00	1.2195	28.6941	24.9871	.3621
77.00	1.2260	30.7245	26.9977	.3886
78.00	1.2327	32.7521	29.0051	.4148
79.00	1.2395	34.7771	31.0095	.4406
80.00	1.2464	36.7998	33.0111	.4660
81.00	1.2534	38.8206	35.0105	.4911
82.00	1.2606	40.8400	37.0080	.5159
83.00	1.2680	42.8587	39.0044	.5404
84.00	1.2755	44.8775	41.0004	.5645
85.00	1.2831	46.8973	42.9969	.5884
86.00	1.2909	48.9190	44.9949	.6121
87.00	1.2989	50.9437	46.9954	.6355
88.00	1.3071	52.9727	48.9995	.6587
89.00	1.3155	55.0071	51.0084	.6817
90.00	1.3240	57.0482	53.0235	.7045
91.00	1.3328	59.0974	55.0460	.7271
92.00	1.3418	61.1561	57.0774	.7496
93.00	1.3511	63.2258	59.1189	.7720
94.00	1.3605	65.3078	61.1721	.7943
95.00	1.3703	67.4038	63.2385	.8164
96.00	1.3803	69.5153	65.3194	.8386
97.00	1.3907	71.6437	67.4164	.8606
98.00	1.4014	73.7907	69.5309	.8826
99.00	1.4124	75.9578	71.6645	.9046
100.00	1.4237	78.1465	73.8187	.9266
101.00	1.4355	80.3586	75.9949	.9486
102.00	1.4477	82.5955	78.1947	.9707
103.00	1.4604	84.8591	80.4198	.9928
104.00	1.4736	87.1511	82.6717	1.0149
105.00	1.4874	89.4735	84.9522	1.0371
106.00	1.5017	91.8016	87.2367	1.0592
107.00	1.5168	94.1549	89.5444	1.0813
108.00	1.5325	96.5358	91.8773	1.1035
109.00	1.5491	98.9471	94.2381	1.1257
110.00	1.5667	101.392	96.6298	1.1480
111.00	1.5852	103.875	99.0559	1.1705
112.00	1.6050	106.405	101.526	1.1932
113.00	1.6261	108.974	104.031	1.2161
114.00	1.6489	111.610	106.598	1.2394
115.00	1.6735	114.309	109.222	1.2630
116.00	1.7003	117.084	111.916	1.2871
117.00	1.7299	119.935	114.676	1.3116
118.00	1.7629	122.890	117.531	1.3369
119.00	1.8002	125.985	120.513	1.3631
120.00	1.8434	129.265	123.661	1.3906
121.00	1.8948	132.910	127.151	1.4210
122.00	1.9588	137.204	131.250	1.4565
123.00	2.0446	142.320	136.105	1.4984
* 123.891	2.1612	148.260	141.691	1.5466
* 123.891	5.7440	214.898	197.438	2.0845
124.00	5.8235	215.807	198.105	2.0918
125.00	6.3926	222.143	202.711	2.1427
126.00	6.8200	226.749	206.018	2.1794
127.00	7.1800	230.553	208.728	2.2095
128.00	7.4987	233.877	211.083	2.2356
129.00	7.7888	236.874	213.198	2.2589
130.00	8.0576	239.632	215.139	2.2802
131.00	8.3100	242.206	216.945	2.2999
132.00	8.5490	244.633	218.646	2.3184
133.00	8.7769	246.940	220.261	2.3358
134.00	8.9956	249.148	221.803	2.3523
135.00	9.2063	251.270	223.285	2.3681
136.00	9.4100	253.319	224.715	2.3832
137.00	9.6077	255.303	226.099	2.3978
138.00	9.7999	257.232	227.443	2.4118
139.00	9.9873	259.110	228.752	2.4254
140.00	10.1703	260.944	230.029	2.4385
141.00	10.3494	262.737	231.278	2.4513
142.00	10.5248	264.494	232.501	2.4637
143.00	10.6970	266.217	233.701	2.4758
144.00	10.8661	267.910	234.880	2.4876
145.00	11.0325	269.575	236.039	2.4991
146.00	11.1962	271.215	237.181	2.5104
147.00	11.3575	272.830	238.306	2.5214
148.00	11.5166	274.423	239.416	2.5322
149.00	11.6735	275.996	240.511	2.5428
150.00	11.8285	277.549	241.593	2.5532
151.00	11.9816	279.085	242.663	2.5634
152.00	12.1330	280.603	243.722	2.5734
153.00	12.2828	282.106	244.769	2.5833
154.00	12.4309	283.593	245.806	2.5929
155.00	12.5776	285.067	246.834	2.6025
156.00	12.7229	286.527	247.853	2.6119
157.00	12.8669	287.975	248.863	2.6211
158.00	13.0096	289.410	249.864	2.6302
159.00	13.1511	290.835	250.859	2.6392
160.00	13.2915	292.248	251.845	2.6481
161.00	13.4308	293.651	252.825	2.6568
162.00	13.5690	295.045	253.799	2.6655
163.00	13.7062	296.429	254.766	2.6740
164.00	13.8424	297.804	255.727	2.6824
165.00	13.9778	299.171	256.682	2.6907
166.00	14.1122	300.529	257.631	2.6989
167.00	14.2458	301.880	258.576	2.7070
168.00	14.3786	303.223	259.515	2.7150
169.00	14.5106	304.559	260.450	2.7230
170.00	14.6419	305.887	261.380	2.7308
171.00	14.7724	307.210	262.305	2.7386
172.00	14.9022	308.526	263.227	2.7462
173.00	15.0314	309.835	264.144	2.7538
174.00	15.1599	311.139	265.057	2.7613
175.00	15.2878	312.437	265.966	2.7688
176.00	15.4150	313.729	266.872	2.7761
177.00	15.5417	315.016	267.774	2.7834
178.00	15.6678	316.298	268.672	2.7906
179.00	15.7933	317.575	269.568	2.7978
180.00	15.9183	318.848	270.460	2.8049

* PHASE CHANGE

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	16.0428	320.115	271.349	2.8119	241.00	22.9289	391.012	321.314	3.1511
182.00	16.1668	321.378	272.235	2.8189	242.00	23.0376	392.141	322.112	3.1558
183.00	16.2903	322.637	273.118	2.8258	243.00	23.1462	393.269	322.910	3.1604
184.00	16.4133	323.891	273.999	2.8326	244.00	23.2546	394.395	323.707	3.1651
185.00	16.5359	325.141	274.876	2.8394	245.00	23.3629	395.521	324.504	3.1697
186.00	16.6580	326.387	275.751	2.8461	246.00	23.4711	396.645	325.299	3.1742
187.00	16.7797	327.630	276.624	2.8528	247.00	23.5791	397.769	326.095	3.1788
188.00	16.9010	328.868	277.494	2.8594	248.00	23.6871	398.892	326.889	3.1833
189.00	17.0218	330.103	278.361	2.8659	249.00	23.7949	400.013	327.683	3.1878
190.00	17.1423	331.335	279.227	2.8724	250.00	23.9026	401.134	328.476	3.1923
191.00	17.2624	332.563	280.090	2.8789	251.00	24.0102	402.254	329.269	3.1968
192.00	17.3821	333.788	280.950	2.8853	252.00	24.1177	403.372	330.061	3.2013
193.00	17.5014	335.009	281.809	2.8916	253.00	24.2251	404.490	330.852	3.2057
194.00	17.6204	336.227	282.666	2.8979	254.00	24.3324	405.607	331.643	3.2101
195.00	17.7390	337.442	283.520	2.9041	255.00	24.4396	406.723	332.433	3.2145
196.00	17.8573	338.655	284.373	2.9103	256.00	24.5466	407.839	333.223	3.2188
197.00	17.9752	339.864	285.224	2.9165	257.00	24.6536	408.953	334.012	3.2232
198.00	18.0929	341.070	286.073	2.9226	258.00	24.7605	410.067	334.801	3.2275
199.00	18.2102	342.274	286.920	2.9287	259.00	24.8673	411.179	335.589	3.2318
200.00	18.3272	343.475	287.765	2.9347	260.00	24.9739	412.291	336.377	3.2361
201.00	18.4439	344.673	288.609	2.9407	261.00	25.0805	413.402	337.164	3.2404
202.00	18.5603	345.869	289.450	2.9466	262.00	25.1870	414.513	337.951	3.2446
203.00	18.6765	347.062	290.291	2.9525	263.00	25.2934	415.622	338.737	3.2488
204.00	18.7923	348.253	291.129	2.9583	264.00	25.3997	416.731	339.522	3.2530
205.00	18.9079	349.442	291.966	2.9642	265.00	25.5059	417.839	340.308	3.2572
206.00	19.0232	350.628	292.802	2.9699	266.00	25.6121	418.947	341.092	3.2614
207.00	19.1383	351.812	293.636	2.9757	267.00	25.7181	420.053	341.877	3.2656
208.00	19.2531	352.993	294.469	2.9814	268.00	25.8241	421.159	342.660	3.2697
209.00	19.3677	354.173	295.300	2.9870	269.00	25.9300	422.264	343.444	3.2738
210.00	19.4820	355.350	296.130	2.9926	270.00	26.0358	423.369	344.227	3.2779
211.00	19.5960	356.525	296.958	2.9982	271.00	26.1415	424.473	345.009	3.2820
212.00	19.7099	357.699	297.786	3.0038	272.00	26.2471	425.576	345.791	3.2861
213.00	19.8235	358.870	298.612	3.0093	273.00	26.3527	426.679	346.573	3.2901
214.00	19.9369	360.039	299.436	3.0148	274.00	26.4581	427.780	347.354	3.2941
215.00	20.0501	361.207	300.260	3.0202	275.00	26.5635	428.882	348.135	3.2981
216.00	20.1630	362.373	301.082	3.0256	276.00	26.6689	429.982	348.916	3.3021
217.00	20.2758	363.536	301.903	3.0310	277.00	26.7741	431.082	349.696	3.3061
218.00	20.3883	364.698	302.723	3.0363	278.00	26.8793	432.182	350.476	3.3101
219.00	20.5007	365.859	303.542	3.0416	279.00	26.9844	433.281	351.255	3.3140
220.00	20.6129	367.017	304.360	3.0469	280.00	27.0894	434.379	352.034	3.3180
221.00	20.7248	368.174	305.176	3.0522	281.00	27.1944	435.476	352.812	3.3219
222.00	20.8366	369.330	305.992	3.0574	282.00	27.2993	436.574	353.591	3.3258
223.00	20.9482	370.484	306.806	3.0626	283.00	27.4041	437.670	354.368	3.3296
224.00	21.0596	371.636	307.620	3.0677	284.00	27.5089	438.766	355.146	3.3335
225.00	21.1708	372.786	308.433	3.0728	285.00	27.6136	439.861	355.923	3.3374
226.00	21.2819	373.936	309.244	3.0779	286.00	27.7182	440.956	356.700	3.3412
227.00	21.3928	375.083	310.055	3.0830	287.00	27.8228	442.051	357.477	3.3450
228.00	21.5035	376.230	310.864	3.0880	288.00	27.9273	443.145	358.253	3.3488
229.00	21.6140	377.374	311.673	3.0931	289.00	28.0317	444.238	359.029	3.3526
230.00	21.7244	378.518	312.481	3.0980	290.00	28.1361	445.331	359.804	3.3564
231.00	21.8347	379.660	313.288	3.1030	291.00	28.2404	446.423	360.579	3.3601
232.00	21.9447	380.801	314.094	3.1079	292.00	28.3446	447.515	361.354	3.3639
233.00	22.0547	381.940	314.900	3.1128	293.00	28.4488	448.606	362.129	3.3676
234.00	22.1645	383.079	315.704	3.1177	294.00	28.5529	449.697	362.903	3.3713
235.00	22.2741	384.215	316.508	3.1225	295.00	28.6570	450.787	363.677	3.3750
236.00	22.3836	385.351	317.311	3.1274	296.00	28.7610	451.877	364.451	3.3787
237.00	22.4929	386.486	318.113	3.1322	297.00	28.8650	452.967	365.225	3.3824
238.00	22.6021	387.619	318.914	3.1369	298.00	28.9689	454.056	365.998	3.3861
239.00	22.7112	388.751	319.715	3.1417	299.00	29.0727	455.144	366.771	3.3897
240.00	22.8201	389.882	320.515	3.1464	300.00	29.1765	456.233	367.543	3.3933

35.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.8418	130.830	124.298	1.3960
					122.00	1.8889	134.447	127.749	1.4259
					123.00	1.9452	138.436	131.538	1.4586
64.00	1.1491	4.6339	.5588	.0089	124.00	2.0157	142.916	135.767	1.4950
65.00	1.1542	6.6630	2.5697	.0404	125.00	2.1104	148.196	140.712	1.5376
66.00	1.1595	8.6966	4.5847	.0715	126.00	2.2571	155.105	147.100	1.5927
67.00	1.1648	10.7336	6.6026	.1021	127.00	2.6364	168.713	159.363	1.7004
68.00	1.1703	12.7727	8.6223	.1323	128.00	4.7028	209.552	192.874	2.0212
69.00	1.1759	14.8130	10.6429	.1621	129.00	5.2760	217.668	198.957	2.0844
70.00	1.1816	16.8535	12.6632	.1914	130.00	5.6903	223.212	203.032	2.1272
71.00	1.1873	18.8934	14.6826	.2204	131.00	6.0327	227.648	206.254	2.1612
72.00	1.1932	20.9321	16.7004	.2489	132.00	6.3321	231.443	208.987	2.1900
73.00	1.1992	22.9688	18.7159	.2770	133.00	6.6022	234.813	211.399	2.2155
74.00	1.2054	25.0033	20.7286	.3047	134.00	6.8510	237.880	213.584	2.2384
75.00	1.2116	27.0350	22.7382	.3319	135.00	7.0832	240.716	215.596	2.2595
76.00	1.2179	29.0638	24.7445	.3588	136.00	7.3021	243.371	217.475	2.2791
77.00	1.2244	31.0895	26.7474	.3853	137.00	7.5102	245.878	219.244	2.2975
78.00	1.2310	33.1123	28.7468	.4114	138.00	7.7092	248.265	220.925	2.3148
79.00	1.2377	35.1322	30.7429	.4371	139.00	7.9004	250.548	222.531	2.3313
80.00	1.2445	37.1495	32.7360	.4625	140.00	8.0848	252.744	224.072	2.3471
81.00	1.2515	39.1647	34.7265	.4875	141.00	8.2633	254.863	225.559	2.3622
82.00	1.2586	41.1782	36.7148	.5122	142.00	8.4366	256.916	226.997	2.3767
83.00	1.2658	43.1908	38.7017	.5366	143.00	8.6053	258.910	228.393	2.3907
84.00	1.2732	45.2031	40.6878	.5607	144.00	8.7697	260.851	229.750	2.4042
85.00	1.2808	47.2160	42.6740	.5846	145.00	8.9303	262.745	231.075	2.4173
86.00	1.2885	49.2305	44.6611	.6081	146.00	9.0876	264.596	232.368	2.4300
87.00	1.2963	51.2476	46.6503	.6314	147.00	9.2416	266.409	233.635	2.4424
88.00	1.3044	53.2685	48.6426	.6545	148.00	9.3928	268.186	234.876	2.4544
89.00	1.3126	55.2943	50.6392	.6774	149.00	9.5413	269.931	236.094	2.4662
90.00	1.3210	57.3263	52.6413	.7001	150.00	9.6873	271.646	237.292	2.4777
91.00	1.3297	59.3657	54.6502	.7227	151.00	9.8310	273.334	238.470	2.4889
92.00	1.3385	61.4140	56.6672	.7450	152.00	9.9726	274.996	239.630	2.4999
93.00	1.3476	63.4726	58.6936	.7673	153.00	10.1122	276.635	240.773	2.5106
94.00	1.3569	65.5428	60.7308	.7894	154.00	10.2499	278.251	241.902	2.5211
95.00	1.3664	67.6260	62.7802	.8115	155.00	10.3858	279.848	243.015	2.5315
96.00	1.3762	69.7238	64.8431	.8335	156.00	10.5202	281.424	244.116	2.5416
97.00	1.3863	71.8375	66.9210	.8554	157.00	10.6529	282.983	245.204	2.5516
98.00	1.3967	73.9685	69.0152	.8772	158.00	10.7842	284.525	246.280	2.5613
99.00	1.4075	76.1184	71.1270	.8990	159.00	10.9141	286.050	247.345	2.5710
100.00	1.4185	78.2884	73.2578	.9208	160.00	11.0427	287.561	248.399	2.5804
101.00	1.4300	80.4802	75.4090	.9427	161.00	11.1700	289.057	249.444	2.5898
102.00	1.4418	82.6950	77.5819	.9645	162.00	11.2961	290.540	250.480	2.5989
103.00	1.4540	84.9344	79.7778	.9863	163.00	11.4211	292.010	251.506	2.6080
104.00	1.4668	87.1998	81.9981	1.0082	164.00	11.5451	293.467	252.524	2.6169
105.00	1.4800	89.4929	84.2443	1.0302	165.00	11.6680	294.913	253.534	2.6257
106.00	1.4938	91.7887	86.4912	1.0519	166.00	11.7899	296.348	254.537	2.6344
107.00	1.5082	94.1061	88.7576	1.0737	167.00	11.9108	297.773	255.533	2.6429
108.00	1.5232	96.4469	91.0451	1.0955	168.00	12.0309	299.187	256.521	2.6514
109.00	1.5390	98.8132	93.3554	1.1173	169.00	12.1501	300.592	257.503	2.6597
110.00	1.5555	101.207	95.6908	1.1392	170.00	12.2685	301.987	258.479	2.6679
111.00	1.5730	103.632	98.0537	1.1611	171.00	12.3860	303.374	259.449	2.6761
112.00	1.5915	106.096	100.452	1.1833	172.00	12.5029	304.753	260.413	2.6841
113.00	1.6111	108.589	102.876	1.2055	173.00	12.6189	306.123	261.371	2.6921
114.00	1.6321	111.136	105.348	1.2279	174.00	12.7343	307.485	262.325	2.6999
115.00	1.6545	113.729	107.862	1.2506	175.00	12.8490	308.840	263.273	2.7077
116.00	1.6787	116.378	110.424	1.2736	176.00	12.9630	310.188	264.216	2.7154
117.00	1.7050	119.074	113.027	1.2968	177.00	13.0764	311.529	265.155	2.7229
118.00	1.7338	121.836	115.687	1.3204	178.00	13.1892	312.863	266.089	2.7305
119.00	1.7656	124.685	118.424	1.3446	179.00	13.3014	314.191	267.019	2.7379
120.00	1.8012	127.638	121.250	1.3694	180.00	13.4130	315.512	267.945	2.7453

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	13.5241	316.828	268.867	2.7526	241.00	19.5801	389.357	319.918	3.0997
182.00	13.6346	318.138	269.785	2.7598	242.00	19.6748	390.501	320.727	3.1045
183.00	13.7446	319.442	270.699	2.7669	243.00	19.7694	391.644	321.535	3.1092
184.00	13.8541	320.741	271.609	2.7740	244.00	19.8638	392.786	322.342	3.1139
185.00	13.9631	322.035	272.516	2.7810	245.00	19.9582	393.927	323.148	3.1185
186.00	14.0717	323.324	273.420	2.7880	246.00	20.0524	395.067	323.954	3.1232
187.00	14.1798	324.607	274.321	2.7948	247.00	20.1464	396.205	324.758	3.1278
188.00	14.2875	325.886	275.218	2.8017	248.00	20.2404	397.342	325.562	3.1324
189.00	14.3947	327.161	276.112	2.8084	249.00	20.3342	398.478	326.366	3.1370
190.00	14.5015	328.431	277.003	2.8151	250.00	20.4280	399.613	327.168	3.1415
191.00	14.6079	329.697	277.892	2.8218	251.00	20.5216	400.747	327.970	3.1460
192.00	14.7139	330.958	278.777	2.8284	252.00	20.6151	401.880	328.771	3.1506
193.00	14.8195	332.216	279.660	2.8349	253.00	20.7085	403.011	329.571	3.1550
194.00	14.9248	333.469	280.541	2.8414	254.00	20.8018	404.142	330.371	3.1595
195.00	15.0297	334.719	281.418	2.8478	255.00	20.8950	405.271	331.170	3.1639
196.00	15.1342	335.965	282.294	2.8542	256.00	20.9881	406.400	331.968	3.1683
197.00	15.2384	337.208	283.167	2.8605	257.00	21.0811	407.527	332.766	3.1727
198.00	15.3423	338.447	284.037	2.8668	258.00	21.1739	408.653	333.563	3.1771
199.00	15.4458	339.682	284.905	2.8730	259.00	21.2667	409.779	334.359	3.1815
200.00	15.5490	340.914	285.772	2.8792	260.00	21.3594	410.903	335.155	3.1858
201.00	15.6519	342.143	286.636	2.8853	261.00	21.4520	412.027	335.950	3.1901
202.00	15.7545	343.369	287.497	2.8914	262.00	21.5445	413.150	336.745	3.1944
203.00	15.8568	344.592	288.357	2.8974	263.00	21.6369	414.271	337.539	3.1987
204.00	15.9589	345.811	289.215	2.9034	264.00	21.7293	415.392	338.332	3.2029
205.00	16.0606	347.028	290.071	2.9094	265.00	21.8215	416.512	339.125	3.2072
206.00	16.1621	348.242	290.925	2.9153	266.00	21.9136	417.631	339.917	3.2114
207.00	16.2633	349.453	291.777	2.9211	267.00	22.0057	418.749	340.709	3.2156
208.00	16.3642	350.661	292.628	2.9270	268.00	22.0977	419.867	341.500	3.2198
209.00	16.4649	351.867	293.477	2.9327	269.00	22.1895	420.983	342.291	3.2239
210.00	16.5653	353.070	294.324	2.9385	270.00	22.2813	422.099	343.081	3.2281
211.00	16.6655	354.271	295.169	2.9442	271.00	22.3731	423.214	343.871	3.2322
212.00	16.7655	355.469	296.013	2.9498	272.00	22.4647	424.328	344.660	3.2363
213.00	16.8652	356.665	296.855	2.9555	273.00	22.5563	425.441	345.449	3.2404
214.00	16.9647	357.858	297.695	2.9611	274.00	22.6478	426.554	346.237	3.2444
215.00	17.0640	359.050	298.535	2.9666	275.00	22.7392	427.666	347.024	3.2485
216.00	17.1630	360.239	299.372	2.9721	276.00	22.8305	428.777	347.812	3.2525
217.00	17.2619	361.425	300.208	2.9776	277.00	22.9218	429.887	348.598	3.2565
218.00	17.3605	362.610	301.043	2.9831	278.00	23.0129	430.997	349.385	3.2605
219.00	17.4589	363.792	301.877	2.9885	279.00	23.1041	432.106	350.171	3.2645
220.00	17.5571	364.973	302.709	2.9939	280.00	23.1951	433.214	350.956	3.2685
221.00	17.6552	366.151	303.539	2.9992	281.00	23.2861	434.322	351.741	3.2724
222.00	17.7530	367.328	304.369	3.0045	282.00	23.3770	435.429	352.525	3.2764
223.00	17.8507	368.502	305.197	3.0098	283.00	23.4678	436.535	353.310	3.2803
224.00	17.9481	369.675	306.024	3.0150	284.00	23.5586	437.641	354.093	3.2842
225.00	18.0454	370.846	306.850	3.0203	285.00	23.6493	438.746	354.877	3.2881
226.00	18.1425	372.015	307.675	3.0254	286.00	23.7399	439.850	355.659	3.2919
227.00	18.2395	373.182	308.498	3.0306	287.00	23.8305	440.954	356.442	3.2958
228.00	18.3362	374.348	309.320	3.0357	288.00	23.9210	442.057	357.224	3.2996
229.00	18.4328	375.511	310.142	3.0408	289.00	24.0114	443.159	358.006	3.3034
230.00	18.5293	376.673	310.962	3.0459	290.00	24.1018	444.261	358.787	3.3072
231.00	18.6255	377.834	311.781	3.0509	291.00	24.1921	445.362	359.568	3.3110
232.00	18.7217	378.993	312.599	3.0559	292.00	24.2824	446.463	360.349	3.3148
233.00	18.8176	380.150	313.416	3.0609	293.00	24.3726	447.563	361.129	3.3186
234.00	18.9134	381.306	314.232	3.0658	294.00	24.4627	448.663	361.909	3.3223
235.00	19.0091	382.461	315.047	3.0708	295.00	24.5528	449.762	362.688	3.3261
236.00	19.1046	383.613	315.861	3.0757	296.00	24.6428	450.860	363.468	3.3298
237.00	19.2000	384.765	316.674	3.0805	297.00	24.7328	451.958	364.247	3.3335
238.00	19.2952	385.915	317.487	3.0854	298.00	24.8227	453.056	365.025	3.3372
239.00	19.3903	387.063	318.298	3.0902	299.00	24.9126	454.152	365.803	3.3408
240.00	19.4853	388.211	319.109	3.0950	300.00	25.0024	455.249	366.581	3.3445

40.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
64.00	1.1481	5.0513	.3980	.0064
65.00	1.1532	7.0769	2.4029	.0378
66.00	1.1584	9.1070	4.4119	.0688
67.00	1.1638	11.1404	6.4237	.0994
68.00	1.1692	13.1759	8.4372	.1295
69.00	1.1747	15.2125	10.4514	.1592
70.00	1.1803	17.2493	12.4654	.1886
71.00	1.1861	19.2855	14.4783	.2174
72.00	1.1919	21.3202	16.4894	.2459
73.00	1.1979	23.3530	18.4980	.2739
74.00	1.2039	25.3833	20.5038	.3016
75.00	1.2101	27.4108	22.5062	.3288
76.00	1.2164	29.4352	24.5052	.3556
77.00	1.2228	31.4564	26.5005	.3820
78.00	1.2293	33.4744	28.4921	.4080
79.00	1.2359	35.4893	30.4802	.4337
80.00	1.2427	37.5015	32.4650	.4590
81.00	1.2496	39.5113	34.4468	.4840
82.00	1.2566	41.5192	36.4263	.5086
83.00	1.2637	43.5258	38.4039	.5329
84.00	1.2710	45.5319	40.3804	.5570
85.00	1.2785	47.5382	42.3566	.5807
86.00	1.2861	49.5458	44.3334	.6042
87.00	1.2938	51.5556	46.3117	.6274
88.00	1.3018	53.5687	48.2927	.6504
89.00	1.3099	55.5863	50.2775	.6732
90.00	1.3181	57.6095	52.2671	.6958
91.00	1.3266	59.6397	54.2630	.7183
92.00	1.3353	61.6782	56.2663	.7406
93.00	1.3442	63.7262	58.2783	.7627
94.00	1.3533	65.7852	60.3003	.7847
95.00	1.3626	67.8564	62.3336	.8066
96.00	1.3722	69.9413	64.3796	.8285
97.00	1.3821	72.0412	66.4394	.8502
98.00	1.3923	74.1573	68.5145	.8719
99.00	1.4027	76.2912	70.6059	.8936
100.00	1.4135	78.4439	72.7150	.9152
101.00	1.4246	80.6169	74.8430	.9369
102.00	1.4361	82.8114	76.9909	.9585
103.00	1.4480	85.0286	79.1600	.9801
104.00	1.4603	87.2698	81.3514	1.0018
105.00	1.4730	89.5364	83.5663	1.0234
106.00	1.4863	91.8031	85.7792	1.0449
107.00	1.5001	94.0883	88.0085	1.0664
108.00	1.5145	96.3936	90.2555	1.0878
109.00	1.5295	98.7203	92.5212	1.1093
110.00	1.5452	101.070	94.8073	1.1308
111.00	1.5618	103.445	97.1155	1.1523
112.00	1.5792	105.853	99.4525	1.1739
113.00	1.5975	108.282	101.807	1.1955
114.00	1.6170	110.755	104.201	1.2174
115.00	1.6377	113.263	106.626	1.2393
116.00	1.6599	115.812	109.085	1.2615
117.00	1.6837	118.390	111.566	1.2837
118.00	1.7094	121.010	114.082	1.3060
119.00	1.7374	123.686	116.644	1.3287
120.00	1.7681	126.422	119.256	1.3517
121.00	1.8021	129.336	122.032	1.3760
122.00	1.8403	132.585	125.126	1.4029
123.00	1.8839	136.063	128.428	1.4314
124.00	1.9345	139.788	131.947	1.4617
125.00	1.9951	143.836	135.750	1.4944
126.00	2.0704	148.336	139.945	1.5304
127.00	2.1695	153.647	144.855	1.5725
128.00	2.3131	160.444	151.069	1.6258
129.00	2.5610	169.976	159.596	1.7000
130.00	3.1016	185.579	173.009	1.8204
131.00	3.8199	201.205	185.723	1.9402
132.00	4.3426	210.758	193.157	2.0129
133.00	4.7411	217.432	198.216	2.0632
134.00	5.0712	222.681	202.128	2.1026
135.00	5.3584	227.092	205.375	2.1354
136.00	5.6160	230.951	208.190	2.1638
137.00	5.8519	234.418	210.700	2.1892
138.00	6.0710	237.590	212.985	2.2123
139.00	6.2768	240.534	215.094	2.2336
140.00	6.4716	243.294	217.065	2.2534
141.00	6.6572	245.903	218.921	2.2719
142.00	6.8350	248.386	220.684	2.2895
143.00	7.0061	250.762	222.366	2.3061
144.00	7.1713	253.045	223.979	2.3221
145.00	7.3313	255.247	225.533	2.3373
146.00	7.4867	257.379	227.035	2.3519
147.00	7.6380	259.448	228.491	2.3661
148.00	7.7855	261.460	229.906	2.3797
149.00	7.9296	263.423	231.284	2.3929
150.00	8.0707	265.339	232.629	2.4058
151.00	8.2089	267.215	233.944	2.4182
152.00	8.3445	269.052	235.232	2.4303
153.00	8.4776	270.854	236.495	2.4422
154.00	8.6086	272.625	237.734	2.4537
155.00	8.7374	274.366	238.953	2.4650
156.00	8.8644	276.080	240.152	2.4760
157.00	8.9895	277.768	241.334	2.4868
158.00	9.1129	279.432	242.498	2.4973
159.00	9.2347	281.074	243.646	2.5077
160.00	9.3550	282.696	244.780	2.5179
161.00	9.4738	284.298	245.900	2.5278
162.00	9.5914	285.881	247.008	2.5377
163.00	9.7076	287.448	248.103	2.5473
164.00	9.8227	288.998	249.187	2.5568
165.00	9.9365	290.532	250.260	2.5661
166.00	10.0494	292.052	251.322	2.5753
167.00	10.1611	293.558	252.375	2.5843
168.00	10.2719	295.051	253.419	2.5932
169.00	10.3817	296.532	254.455	2.6020
170.00	10.4907	298.000	255.482	2.6107
171.00	10.5987	299.457	256.501	2.6192
172.00	10.7059	300.903	257.512	2.6277
173.00	10.8124	302.339	258.517	2.6360
174.00	10.9180	303.765	259.514	2.6442
175.00	11.0230	305.181	260.505	2.6523
176.00	11.1272	306.589	261.490	2.6603
177.00	11.2308	307.987	262.469	2.6683
178.00	11.3337	309.377	263.442	2.6761
179.00	11.4359	310.759	264.410	2.6838
180.00	11.5376	312.134	265.372	2.6915

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	11.6387	313.500	266.329	2.6991	241.00	17.0722	387.712	318.518	3.0545
182.00	11.7392	314.860	267.281	2.7066	242.00	17.1564	388.872	319.337	3.0593
183.00	11.8391	316.213	268.229	2.7140	243.00	17.2405	390.031	320.156	3.0641
184.00	11.9386	317.559	269.172	2.7213	244.00	17.3244	391.189	320.973	3.0688
185.00	12.0375	318.898	270.111	2.7286	245.00	17.4082	392.345	321.789	3.0736
186.00	12.1359	320.232	271.045	2.7358	246.00	17.4919	393.499	322.605	3.0783
187.00	12.2339	321.559	271.975	2.7429	247.00	17.5755	394.652	323.419	3.0830
188.00	12.3313	322.881	272.902	2.7499	248.00	17.6589	395.804	324.233	3.0876
189.00	12.4284	324.196	273.824	2.7569	249.00	17.7423	396.955	325.045	3.0922
190.00	12.5250	325.507	274.743	2.7638	250.00	17.8255	398.104	325.857	3.0968
191.00	12.6212	326.812	275.659	2.7707	251.00	17.9086	399.252	326.668	3.1014
192.00	12.7169	328.112	276.570	2.7775	252.00	17.9916	400.398	327.478	3.1060
193.00	12.8123	329.407	277.479	2.7842	253.00	18.0745	401.544	328.288	3.1105
194.00	12.9073	330.698	278.384	2.7909	254.00	18.1573	402.688	329.096	3.1150
195.00	13.0019	331.983	279.287	2.7975	255.00	18.2400	403.831	329.904	3.1195
196.00	13.0961	333.264	280.186	2.8040	256.00	18.3226	404.972	330.711	3.1240
197.00	13.1900	334.541	281.082	2.8105	257.00	18.4050	406.113	331.517	3.1284
198.00	13.2835	335.814	281.976	2.8170	258.00	18.4874	407.252	332.323	3.1329
199.00	13.3767	337.082	282.866	2.8234	259.00	18.5697	408.390	333.128	3.1373
200.00	13.4696	338.346	283.754	2.8297	260.00	18.6519	409.528	333.932	3.1416
201.00	13.5622	339.607	284.640	2.8360	261.00	18.7340	410.664	334.735	3.1460
202.00	13.6544	340.864	285.522	2.8422	262.00	18.8159	411.799	335.538	3.1503
203.00	13.7463	342.116	286.403	2.8484	263.00	18.8979	412.932	336.340	3.1547
204.00	13.8380	343.366	287.281	2.8545	264.00	18.9797	414.065	337.141	3.1590
205.00	13.9293	344.612	288.156	2.8606	265.00	19.0614	415.197	337.941	3.1632
206.00	14.0204	345.854	289.029	2.8667	266.00	19.1430	416.328	338.741	3.1675
207.00	14.1112	347.093	289.901	2.8727	267.00	19.2246	417.458	339.541	3.1717
208.00	14.2017	348.329	290.770	2.8786	268.00	19.3060	418.587	340.339	3.1760
209.00	14.2920	349.562	291.636	2.8845	269.00	19.3874	419.714	341.137	3.1802
210.00	14.3820	350.791	292.501	2.8904	270.00	19.4687	420.841	341.935	3.1843
211.00	14.4718	352.018	293.364	2.8962	271.00	19.5499	421.967	342.732	3.1885
212.00	14.5613	353.242	294.225	2.9020	272.00	19.6310	423.093	343.528	3.1927
213.00	14.6506	354.463	295.084	2.9078	273.00	19.7121	424.217	344.324	3.1968
214.00	14.7397	355.681	295.941	2.9135	274.00	19.7931	425.340	345.119	3.2009
215.00	14.8285	356.896	296.796	2.9191	275.00	19.8740	426.463	345.914	3.2050
216.00	14.9171	358.109	297.650	2.9248	276.00	19.9548	427.584	346.708	3.2090
217.00	15.0055	359.319	298.502	2.9304	277.00	20.0355	428.705	347.501	3.2131
218.00	15.0937	360.526	299.352	2.9359	278.00	20.1162	429.825	348.294	3.2171
219.00	15.1816	361.731	300.200	2.9414	279.00	20.1968	430.944	349.086	3.2212
220.00	15.2694	362.934	301.047	2.9469	280.00	20.2773	432.062	349.878	3.2252
221.00	15.3570	364.134	301.892	2.9524	281.00	20.3578	433.180	350.670	3.2291
222.00	15.4443	365.332	302.736	2.9578	282.00	20.4382	434.296	351.461	3.2331
223.00	15.5315	366.528	303.579	2.9631	283.00	20.5185	435.412	352.251	3.2371
224.00	15.6185	367.721	304.419	2.9685	284.00	20.5988	436.528	353.041	3.2410
225.00	15.7053	368.912	305.259	2.9738	285.00	20.6790	437.642	353.830	3.2449
226.00	15.7920	370.102	306.097	2.9791	286.00	20.7591	438.756	354.619	3.2488
227.00	15.8784	371.289	306.934	2.9843	287.00	20.8391	439.869	355.408	3.2527
228.00	15.9647	372.474	307.769	2.9895	288.00	20.9191	440.981	356.196	3.2566
229.00	16.0508	373.657	308.603	2.9947	289.00	20.9991	442.093	356.984	3.2604
230.00	16.1368	374.838	309.436	2.9998	290.00	21.0789	443.204	357.771	3.2643
231.00	16.2226	376.017	310.267	3.0049	291.00	21.1587	444.314	358.558	3.2681
232.00	16.3082	377.194	311.097	3.0100	292.00	21.2385	445.423	359.344	3.2719
233.00	16.3937	378.370	311.926	3.0151	293.00	21.3182	446.532	360.130	3.2757
234.00	16.4790	379.543	312.754	3.0201	294.00	21.3978	447.641	360.915	3.2794
235.00	16.5642	380.715	313.581	3.0251	295.00	21.4774	448.748	361.700	3.2832
236.00	16.6492	381.885	314.406	3.0301	296.00	21.5569	449.855	362.485	3.2870
237.00	16.7341	383.054	315.231	3.0350	297.00	21.6364	450.962	363.269	3.2907
238.00	16.8188	384.221	316.054	3.0399	298.00	21.7158	452.067	364.053	3.2944
239.00	16.9034	385.386	316.877	3.0448	299.00	21.7951	453.172	364.837	3.2981
240.00	16.9879	386.550	317.698	3.0497	300.00	21.8744	454.277	365.620	3.3018

45.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.7703	128.197	120.125	1.3591
					122.00	1.8029	131.208	122.988	1.3841
					123.00	1.8390	134.382	125.997	1.4101
64.00	1.1472	5.4695	.2389	.0038	124.00	1.8796	137.707	129.137	1.4372
65.00	1.1522	7.4916	2.2379	.0352	125.00	1.9258	141.209	132.429	1.4654
66.00	1.1574	9.5182	4.2409	.0661	126.00	1.9793	144.923	135.899	1.4952
67.00	1.1627	11.5481	6.2467	.0966	127.00	2.0428	149.021	139.706	1.5277
68.00	1.1681	13.5801	8.2541	.1267	128.00	2.1204	153.730	144.062	1.5646
69.00	1.1736	15.6131	10.2622	.1564	129.00	2.2191	159.038	148.919	1.6059
70.00	1.1791	17.6463	12.2698	.1857	130.00	2.3513	165.230	154.509	1.6537
71.00	1.1848	19.6787	14.2763	.2145	131.00	2.5387	172.727	161.151	1.7112
72.00	1.1906	21.7096	16.2809	.2429	132.00	2.8111	181.858	169.040	1.7806
73.00	1.1965	23.7385	18.2828	.2709	133.00	3.1691	191.896	177.446	1.8564
74.00	1.2025	25.7648	20.2818	.2985	134.00	3.5500	201.074	184.888	1.9251
75.00	1.2086	27.7881	22.2772	.3256	135.00	3.9007	208.638	190.852	1.9814
76.00	1.2148	29.8082	24.2690	.3524	136.00	4.2113	214.838	195.636	2.0271
77.00	1.2212	31.8250	26.2569	.3788	137.00	4.4877	220.063	199.601	2.0654
78.00	1.2276	33.8384	28.2409	.4047	138.00	4.7372	224.594	202.994	2.0984
79.00	1.2342	35.8486	30.2212	.4303	139.00	4.9657	228.619	205.977	2.1274
80.00	1.2409	37.8558	32.1979	.4556	140.00	5.1774	232.261	208.654	2.1536
81.00	1.2477	39.8603	34.1714	.4805	141.00	5.3756	235.606	211.095	2.1774
82.00	1.2546	41.8628	36.1422	.5051	142.00	5.5626	238.713	213.350	2.1993
83.00	1.2617	43.8637	38.1109	.5293	143.00	5.7401	241.627	215.454	2.2198
84.00	1.2689	45.8637	40.0781	.5533	144.00	5.9097	244.379	217.433	2.2389
85.00	1.2762	47.8638	42.0447	.5769	145.00	6.0723	246.996	219.308	2.2571
86.00	1.2837	49.8647	44.0114	.6003	146.00	6.2289	249.496	221.094	2.2742
87.00	1.2914	51.8674	45.9793	.6235	147.00	6.3802	251.895	222.804	2.2906
88.00	1.2992	53.8731	47.9494	.6464	148.00	6.5267	254.207	224.448	2.3063
89.00	1.3071	55.8828	49.9228	.6691	149.00	6.6691	256.441	226.033	2.3213
90.00	1.3153	57.8978	51.9006	.6916	150.00	6.8076	258.607	227.567	2.3358
91.00	1.3236	59.9192	53.8839	.7140	151.00	6.9427	260.711	229.054	2.3498
92.00	1.3322	61.9483	55.8741	.7361	152.00	7.0747	262.759	230.501	2.3633
93.00	1.3409	63.9863	57.8724	.7582	153.00	7.2038	264.757	231.911	2.3764
94.00	1.3498	66.0346	59.8800	.7801	154.00	7.3303	266.710	233.287	2.3891
95.00	1.3590	68.0945	61.8981	.8019	155.00	7.4543	268.621	234.632	2.4015
96.00	1.3684	70.1673	63.9280	.8236	156.00	7.5761	270.494	235.950	2.4136
97.00	1.3780	72.2542	65.9708	.8452	157.00	7.6958	272.331	237.242	2.4253
98.00	1.3880	74.3564	68.0279	.8668	158.00	7.8135	274.137	238.510	2.4368
99.00	1.3982	76.4753	70.1002	.8883	159.00	7.9294	275.912	239.757	2.4480
100.00	1.4086	78.6119	72.1890	.9098	160.00	8.0437	277.659	240.983	2.4589
101.00	1.4195	80.7675	74.2953	.9312	161.00	8.1563	279.380	242.190	2.4696
102.00	1.4306	82.9432	76.4201	.9526	162.00	8.2674	281.077	243.380	2.4802
103.00	1.4421	85.1400	78.5644	.9741	163.00	8.3771	282.751	244.554	2.4905
104.00	1.4541	87.3591	80.7292	.9955	164.00	8.4855	284.403	245.713	2.5006
105.00	1.4664	89.6015	82.9154	1.0170	165.00	8.5926	286.036	246.857	2.5105
106.00	1.4792	91.8418	85.0974	1.0382	166.00	8.6986	287.649	247.987	2.5202
107.00	1.4924	94.0982	87.2932	1.0594	167.00	8.8034	289.245	249.105	2.5298
108.00	1.5062	96.3716	89.5037	1.0806	168.00	8.9071	290.824	250.211	2.5392
109.00	1.5206	98.6632	91.7297	1.1017	169.00	9.0097	292.386	251.305	2.5485
110.00	1.5356	100.974	93.9722	1.1228	170.00	9.1114	293.934	252.389	2.5576
111.00	1.5513	103.306	96.2323	1.1439	171.00	9.2122	295.467	253.463	2.5666
112.00	1.5678	105.665	98.5163	1.1651	172.00	9.3121	296.986	254.527	2.5755
113.00	1.5851	108.039	100.812	1.1863	173.00	9.4111	298.493	255.582	2.5842
114.00	1.6034	110.451	103.140	1.2076	174.00	9.5093	299.987	256.628	2.5928
115.00	1.6227	112.888	105.490	1.2289	175.00	9.6067	301.469	257.666	2.6013
116.00	1.6432	115.356	107.864	1.2503	176.00	9.7034	302.939	258.696	2.6097
117.00	1.6650	117.840	110.248	1.2717	177.00	9.7993	304.399	259.718	2.6180
118.00	1.6884	120.350	112.652	1.2931	178.00	9.8946	305.849	260.733	2.6262
119.00	1.7135	122.895	115.082	1.3147	179.00	9.9892	307.288	261.741	2.6342
120.00	1.7407	125.475	117.538	1.3364	180.00	10.0831	308.718	262.743	2.6422

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	10.1765	310.139	263.738	2.6501	241.00	15.1250	386.079	317.115	3.0140
182.00	10.2692	311.551	264.728	2.6578	242.00	15.2010	387.256	317.945	3.0188
183.00	10.3614	312.955	265.711	2.6655	243.00	15.2769	388.430	318.773	3.0237
184.00	10.4530	314.350	266.689	2.6731	244.00	15.3526	389.603	319.601	3.0285
185.00	10.5441	315.738	267.661	2.6807	245.00	15.4283	390.775	320.428	3.0333
186.00	10.6346	317.118	268.628	2.6881	246.00	15.5038	391.944	321.253	3.0381
187.00	10.7247	318.491	269.590	2.6955	247.00	15.5792	393.113	322.078	3.0428
188.00	10.8143	319.857	270.548	2.7027	248.00	15.6544	394.279	322.901	3.0475
189.00	10.9034	321.216	271.500	2.7099	249.00	15.7296	395.444	323.723	3.0522
190.00	10.9920	322.568	272.448	2.7171	250.00	15.8046	396.608	324.545	3.0569
191.00	11.0803	323.914	273.392	2.7241	251.00	15.8795	397.770	325.365	3.0615
192.00	11.1681	325.254	274.332	2.7311	252.00	15.9543	398.930	326.185	3.0661
193.00	11.2554	326.588	275.268	2.7381	253.00	16.0290	400.089	327.003	3.0707
194.00	11.3424	327.917	276.199	2.7449	254.00	16.1036	401.247	327.821	3.0753
195.00	11.4290	329.239	277.127	2.7517	255.00	16.1781	402.403	328.637	3.0798
196.00	11.5152	330.557	278.052	2.7585	256.00	16.2525	403.558	329.453	3.0843
197.00	11.6011	331.869	278.973	2.7652	257.00	16.3268	404.712	330.268	3.0888
198.00	11.6866	333.176	279.890	2.7718	258.00	16.4010	405.864	331.082	3.0933
199.00	11.7717	334.479	280.804	2.7783	259.00	16.4751	407.015	331.895	3.0978
200.00	11.8565	335.776	281.715	2.7848	260.00	16.5490	408.165	332.708	3.1022
201.00	11.9410	337.069	282.622	2.7913	261.00	16.6229	409.314	333.519	3.1066
202.00	12.0252	338.357	283.527	2.7977	262.00	16.6967	410.461	334.330	3.1110
203.00	12.1091	339.641	284.429	2.8040	263.00	16.7705	411.607	335.140	3.1154
204.00	12.1926	340.921	285.327	2.8103	264.00	16.8441	412.752	335.949	3.1197
205.00	12.2759	342.197	286.224	2.8166	265.00	16.9176	413.895	336.758	3.1240
206.00	12.3588	343.468	287.117	2.8227	266.00	16.9910	415.038	337.565	3.1283
207.00	12.4415	344.736	288.008	2.8289	267.00	17.0644	416.179	338.372	3.1326
208.00	12.5239	346.000	288.896	2.8350	268.00	17.1377	417.320	339.179	3.1369
209.00	12.6061	347.260	289.781	2.8410	269.00	17.2108	418.459	339.984	3.1411
210.00	12.6880	348.517	290.665	2.8470	270.00	17.2839	419.597	340.789	3.1453
211.00	12.7696	349.770	291.545	2.8530	271.00	17.3570	420.734	341.593	3.1495
212.00	12.8510	351.020	292.424	2.8589	272.00	17.4299	421.870	342.397	3.1537
213.00	12.9322	352.266	293.300	2.8647	273.00	17.5028	423.005	343.199	3.1579
214.00	13.0131	353.509	294.174	2.8706	274.00	17.5755	424.139	344.002	3.1620
215.00	13.0938	354.749	295.046	2.8763	275.00	17.6483	425.272	344.803	3.1662
216.00	13.1742	355.986	295.916	2.8821	276.00	17.7209	426.404	345.604	3.1703
217.00	13.2545	357.220	296.784	2.8878	277.00	17.7934	427.536	346.404	3.1744
218.00	13.3345	358.450	297.650	2.8934	278.00	17.8659	428.666	347.204	3.1784
219.00	13.4143	359.678	298.514	2.8991	279.00	17.9383	429.795	348.003	3.1825
220.00	13.4939	360.904	299.376	2.9046	280.00	18.0107	430.923	348.801	3.1865
221.00	13.5733	362.126	300.237	2.9102	281.00	18.0829	432.051	349.599	3.1906
222.00	13.6525	363.346	301.095	2.9157	282.00	18.1552	433.177	350.397	3.1946
223.00	13.7316	364.563	301.952	2.9212	283.00	18.2273	434.303	351.193	3.1985
224.00	13.8104	365.777	302.807	2.9266	284.00	18.2994	435.428	351.990	3.2025
225.00	13.8890	366.989	303.660	2.9320	285.00	18.3714	436.552	352.785	3.2065
226.00	13.9675	368.199	304.512	2.9374	286.00	18.4433	437.675	353.580	3.2104
227.00	14.0458	369.406	305.362	2.9427	287.00	18.5152	438.797	354.375	3.2143
228.00	14.1239	370.610	306.211	2.9480	288.00	18.5870	439.919	355.169	3.2182
229.00	14.2018	371.813	307.058	2.9532	289.00	18.6587	441.039	355.963	3.2221
230.00	14.2796	373.013	307.904	2.9585	290.00	18.7304	442.159	356.756	3.2260
231.00	14.3572	374.211	308.748	2.9637	291.00	18.8020	443.278	357.548	3.2298
232.00	14.4347	375.407	309.590	2.9688	292.00	18.8736	444.397	358.340	3.2336
233.00	14.5119	376.601	310.432	2.9740	293.00	18.9451	445.514	359.132	3.2375
234.00	14.5891	377.792	311.272	2.9791	294.00	19.0165	446.631	359.923	3.2413
235.00	14.6661	378.982	312.110	2.9841	295.00	19.0879	447.747	360.714	3.2451
236.00	14.7429	380.169	312.947	2.9892	296.00	19.1592	448.863	361.504	3.2488
237.00	14.8196	381.355	313.783	2.9942	297.00	19.2305	449.978	362.294	3.2526
238.00	14.8962	382.539	314.618	2.9992	298.00	19.3017	451.092	363.083	3.2563
239.00	14.9726	383.721	315.451	3.0041	299.00	19.3729	452.205	363.872	3.2601
240.00	15.0489	384.901	316.284	3.0091	300.00	19.4440	453.318	364.660	3.2638

50.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.7438	127.300	118.466	1.3444
					122.00	1.7724	130.141	121.162	1.3679
					123.00	1.8036	133.109	123.971	1.3923
					124.00	1.8379	136.179	126.868	1.4173
65.00	1.1512	7.9071	2.0746	.0326	125.00	1.8759	139.360	129.857	1.4429
66.00	1.1564	9.9302	4.0717	.0635	126.00	1.9184	142.659	132.940	1.4694
67.00	1.1616	11.9566	6.0716	.0940	127.00	1.9666	146.204	136.241	1.4975
68.00	1.1670	13.9851	8.0730	.1240	128.00	2.0220	150.154	139.909	1.5285
69.00	1.1724	16.0146	10.0750	.1536	129.00	2.0869	154.372	143.799	1.5613
70.00	1.1779	18.0442	12.0765	.1828	130.00	2.1645	158.937	147.972	1.5966
71.00	1.1836	20.0730	14.0767	.2116	131.00	2.2592	163.949	152.503	1.6350
72.00	1.1893	22.1002	16.0748	.2400	132.00	2.3776	169.523	157.478	1.6774
73.00	1.1952	24.1253	18.0703	.2679	133.00	2.5275	175.760	162.955	1.7244
74.00	1.2011	26.1477	20.0625	.2954	134.00	2.7157	182.639	168.881	1.7760
75.00	1.2072	28.1670	22.0511	.3225	135.00	2.9407	189.891	174.993	1.8299
76.00	1.2133	30.1829	24.0359	.3492	136.00	3.1093	197.041	180.883	1.8827
77.00	1.2196	32.1954	26.0166	.3755	137.00	3.4436	203.682	186.236	1.9313
78.00	1.2260	34.2043	27.9932	.4015	138.00	3.6905	209.650	190.953	1.9747
79.00	1.2325	36.2098	29.9658	.4270	139.00	3.9243	214.965	195.083	2.0131
80.00	1.2391	38.2122	31.9347	.4522	140.00	4.1436	219.717	198.724	2.0472
81.00	1.2458	40.2117	33.9001	.4770	141.00	4.3493	224.005	201.970	2.0777
82.00	1.2527	42.2089	35.8625	.5015	142.00	4.5427	227.916	204.901	2.1053
83.00	1.2596	44.2042	37.8225	.5257	143.00	4.7254	231.518	207.578	2.1306
84.00	1.2668	46.1985	39.7808	.5496	144.00	4.8988	234.867	210.048	2.1539
85.00	1.2740	48.1924	41.7380	.5732	145.00	5.0640	238.004	212.348	2.1757
86.00	1.2814	50.1869	43.6950	.5965	146.00	5.2222	240.962	214.505	2.1960
87.00	1.2889	52.1830	45.6529	.6196	147.00	5.3741	243.768	216.542	2.2151
88.00	1.2966	54.1815	47.6125	.6424	148.00	5.5204	246.444	218.476	2.2333
89.00	1.3045	56.1838	49.5749	.6651	149.00	5.6619	249.005	220.321	2.2505
90.00	1.3125	58.1908	51.5413	.6875	150.00	5.7989	251.468	222.089	2.2670
91.00	1.3207	60.2037	53.5127	.7097	151.00	5.9319	253.842	223.789	2.2828
92.00	1.3291	62.2239	55.4904	.7318	152.00	6.0614	256.137	225.429	2.2979
93.00	1.3377	64.2525	57.4756	.7537	153.00	6.1875	258.363	227.016	2.3125
94.00	1.3464	66.2907	59.4694	.7755	154.00	6.3107	260.526	228.555	2.3266
95.00	1.3554	68.3399	61.4730	.7972	155.00	6.4311	262.632	230.050	2.3402
96.00	1.3646	70.4012	63.4877	.8188	156.00	6.5490	264.686	231.507	2.3535
97.00	1.3741	72.4759	65.5144	.8403	157.00	6.6646	266.693	232.929	2.3663
98.00	1.3838	74.5651	67.5545	.8617	158.00	6.7780	268.657	234.318	2.3787
99.00	1.3937	76.6699	69.6089	.8831	159.00	6.8894	270.581	235.677	2.3909
100.00	1.4040	78.7915	71.6786	.9044	160.00	6.9989	272.468	237.010	2.4027
101.00	1.4145	80.9309	73.7646	.9257	161.00	7.1066	274.321	238.317	2.4143
102.00	1.4254	83.0891	75.8679	.9470	162.00	7.2127	276.142	239.601	2.4255
103.00	1.4366	85.2671	77.9892	.9682	163.00	7.3173	277.935	240.863	2.4366
104.00	1.4481	87.4659	80.1294	.9895	164.00	7.4204	279.699	242.106	2.4474
105.00	1.4601	89.6862	82.2892	1.0107	165.00	7.5222	281.439	243.329	2.4579
106.00	1.4724	91.9024	84.4429	1.0317	166.00	7.6227	283.154	244.535	2.4683
107.00	1.4852	94.1326	86.6082	1.0527	167.00	7.7219	284.846	245.725	2.4785
108.00	1.4985	96.3774	88.7857	1.0736	168.00	7.8200	286.518	246.900	2.4884
109.00	1.5123	98.6375	90.9759	1.0944	169.00	7.9170	288.169	248.060	2.4982
110.00	1.5267	100.914	93.1794	1.1152	170.00	8.0129	289.801	249.206	2.5079
111.00	1.5416	103.207	95.3970	1.1360	171.00	8.1079	291.416	250.339	2.5173
112.00	1.5573	105.524	97.6344	1.1568	172.00	8.2019	293.013	251.461	2.5267
113.00	1.5737	107.851	99.8785	1.1775	173.00	8.2949	294.595	252.571	2.5358
114.00	1.5909	110.210	102.150	1.1983	174.00	8.3872	296.161	253.670	2.5449
115.00	1.6090	112.588	104.436	1.2192	175.00	8.4786	297.713	254.758	2.5538
116.00	1.6281	114.988	106.739	1.2400	176.00	8.5692	299.250	255.837	2.5625
117.00	1.6483	117.395	109.044	1.2607	177.00	8.6591	300.775	256.906	2.5712
118.00	1.6698	119.817	111.357	1.2814	178.00	8.7482	302.287	257.967	2.5797
119.00	1.6928	122.259	113.683	1.3021	179.00	8.8366	303.787	259.019	2.5881
120.00	1.7173	124.719	116.019	1.3228	180.00	8.9244	305.276	260.062	2.5964

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	9.0115	306.753	261.098	2.6046	241.00	13.5705	384.461	315.709	2.9772
182.00	9.0980	308.220	262.127	2.6126	242.00	13.6399	385.653	316.550	2.9821
183.00	9.1839	309.677	263.148	2.6206	243.00	13.7092	386.844	317.389	2.9870
184.00	9.2693	311.124	264.163	2.6285	244.00	13.7784	388.032	318.228	2.9919
185.00	9.3541	312.561	265.171	2.6363	245.00	13.8475	389.219	319.064	2.9967
186.00	9.4383	313.990	266.173	2.6440	246.00	13.9164	390.404	319.900	3.0016
187.00	9.5220	315.410	267.169	2.6516	247.00	13.9852	391.587	320.735	3.0064
188.00	9.6053	316.822	268.159	2.6591	248.00	14.0539	392.768	321.568	3.0111
189.00	9.6880	318.225	269.143	2.6666	249.00	14.1225	393.948	322.400	3.0159
190.00	9.7703	319.621	270.122	2.6739	250.00	14.1909	395.126	323.231	3.0206
191.00	9.8521	321.010	271.096	2.6812	251.00	14.2593	396.302	324.061	3.0253
192.00	9.9335	322.391	272.065	2.6885	252.00	14.3275	397.477	324.890	3.0300
193.00	10.0145	323.765	273.029	2.6956	253.00	14.3956	398.649	325.718	3.0346
194.00	10.0950	325.133	273.989	2.7027	254.00	14.4636	399.821	326.544	3.0392
195.00	10.1752	326.494	274.944	2.7097	255.00	14.5316	400.991	327.370	3.0438
196.00	10.2550	327.848	275.894	2.7166	256.00	14.5994	402.159	328.195	3.0484
197.00	10.3344	329.197	276.840	2.7234	257.00	14.6671	403.325	329.018	3.0529
198.00	10.4134	330.540	277.783	2.7302	258.00	14.7347	404.491	329.841	3.0575
199.00	10.4921	331.877	278.721	2.7370	259.00	14.8022	405.654	330.663	3.0620
200.00	10.5704	333.208	279.656	2.7437	260.00	14.8696	406.817	331.484	3.0665
201.00	10.6484	334.534	280.587	2.7503	261.00	14.9369	407.978	332.304	3.0709
202.00	10.7261	335.855	281.514	2.7568	262.00	15.0042	409.137	333.123	3.0753
203.00	10.8035	337.171	282.438	2.7633	263.00	15.0713	410.296	333.941	3.0798
204.00	10.8805	338.481	283.358	2.7698	264.00	15.1384	411.452	334.758	3.0841
205.00	10.9573	339.788	284.275	2.7761	265.00	15.2053	412.608	335.574	3.0885
206.00	11.0337	341.089	285.189	2.7825	266.00	15.2722	413.762	336.390	3.0929
207.00	11.1099	342.386	286.100	2.7888	267.00	15.3390	414.915	337.204	3.0972
208.00	11.1858	343.678	287.008	2.7950	268.00	15.4057	416.067	338.018	3.1015
209.00	11.2614	344.967	287.913	2.8012	269.00	15.4723	417.218	338.831	3.1058
210.00	11.3368	346.251	288.816	2.8073	270.00	15.5388	418.367	339.644	3.1100
211.00	11.4119	347.531	289.715	2.8134	271.00	15.6053	419.515	340.455	3.1143
212.00	11.4868	348.807	290.612	2.8194	272.00	15.6716	420.662	341.266	3.1185
213.00	11.5614	350.079	291.506	2.8254	273.00	15.7379	421.808	342.076	3.1227
214.00	11.6358	351.347	292.398	2.8313	274.00	15.8041	422.953	342.885	3.1269
215.00	11.7099	352.612	293.287	2.8372	275.00	15.8703	424.096	343.694	3.1311
216.00	11.7838	353.873	294.174	2.8431	276.00	15.9363	425.239	344.501	3.1352
217.00	11.8575	355.131	295.058	2.8489	277.00	16.0023	426.380	345.308	3.1393
218.00	11.9310	356.386	295.940	2.8547	278.00	16.0682	427.520	346.115	3.1435
219.00	12.0042	357.637	296.820	2.8604	279.00	16.1341	428.660	346.921	3.1475
220.00	12.0773	358.885	297.698	2.8661	280.00	16.1999	429.798	347.726	3.1516
221.00	12.1501	360.129	298.574	2.8717	281.00	16.2656	430.935	348.530	3.1557
222.00	12.2228	361.371	299.447	2.8773	282.00	16.3312	432.072	349.334	3.1597
223.00	12.2952	362.610	300.319	2.8829	283.00	16.3968	433.207	350.137	3.1637
224.00	12.3675	363.845	301.188	2.8884	284.00	16.4623	434.341	350.940	3.1677
225.00	12.4396	365.078	302.056	2.8939	285.00	16.5277	435.475	351.741	3.1717
226.00	12.5115	366.308	302.922	2.8994	286.00	16.5931	436.607	352.543	3.1757
227.00	12.5832	367.535	303.786	2.9048	287.00	16.6584	437.739	353.343	3.1796
228.00	12.6548	368.760	304.648	2.9102	288.00	16.7236	438.869	354.144	3.1836
229.00	12.7261	369.982	305.508	2.9155	289.00	16.7888	439.999	354.943	3.1875
230.00	12.7973	371.201	306.367	2.9208	290.00	16.8539	441.128	355.742	3.1914
231.00	12.8684	372.418	307.224	2.9261	291.00	16.9190	442.256	356.540	3.1953
232.00	12.9393	373.633	308.079	2.9314	292.00	16.9840	443.383	357.338	3.1991
233.00	13.0100	374.845	308.933	2.9366	293.00	17.0489	444.509	358.136	3.2030
234.00	13.0806	376.055	309.785	2.9418	294.00	17.1138	445.635	358.932	3.2068
235.00	13.1510	377.262	310.636	2.9469	295.00	17.1786	446.760	359.729	3.2106
236.00	13.2213	378.467	311.485	2.9520	296.00	17.2434	447.884	360.524	3.2144
237.00	13.2914	379.670	312.333	2.9571	297.00	17.3081	449.007	361.320	3.2182
238.00	13.3614	380.871	313.179	2.9622	298.00	17.3727	450.129	362.114	3.2220
239.00	13.4312	382.069	314.024	2.9672	299.00	17.4373	451.250	362.909	3.2258
240.00	13.5009	383.266	314.867	2.9722	300.00	17.5019	452.371	363.702	3.2295

60.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.7008	125.991	115.651	1.3191
					122.00	1.7242	128.603	118.120	1.3408
					123.00	1.7492	131.304	120.669	1.3630
					124.00	1.7760	134.060	123.262	1.3854
65.00	1.1493	8.7400	1.7529	.0275	125.00	1.8048	136.867	125.895	1.4081
66.00	1.1544	10.7565	3.7385	.0583	126.00	1.8359	139.716	128.555	1.4309
67.00	1.1595	12.7761	5.7268	.0886	127.00	1.8697	142.714	131.348	1.4548
68.00	1.1648	14.7979	7.7166	.1186	128.00	1.9066	145.988	134.396	1.4805
69.00	1.1701	16.8205	9.7067	.1481	129.00	1.9472	149.358	137.520	1.5067
70.00	1.1756	18.8432	11.6961	.1772	130.00	1.9921	152.842	140.731	1.5336
71.00	1.1811	20.8649	13.6841	.2059	131.00	2.0422	156.460	144.045	1.5613
72.00	1.1868	22.8849	15.6698	.2341	132.00	2.0984	160.234	147.477	1.5900
73.00	1.1925	24.9026	17.6526	.2620	133.00	2.1619	164.185	151.042	1.6198
74.00	1.1984	26.9175	19.6319	.2894	134.00	2.2341	168.334	154.751	1.6509
75.00	1.2043	28.9290	21.6073	.3164	135.00	2.3165	172.695	158.612	1.6833
76.00	1.2104	30.9369	23.5785	.3430	136.00	2.4103	177.270	162.617	1.7171
77.00	1.2165	32.9411	25.5453	.3692	137.00	2.5166	182.040	166.740	1.7520
78.00	1.2228	34.9415	27.5077	.3950	138.00	2.6355	186.957	170.934	1.7878
79.00	1.2291	36.9381	29.4657	.4204	139.00	2.7659	191.946	175.131	1.8238
80.00	1.2356	38.9312	31.4194	.4455	140.00	2.9057	196.921	179.255	1.8595
81.00	1.2422	40.9211	33.3693	.4702	141.00	3.0520	201.794	183.239	1.8942
82.00	1.2489	42.9082	35.3157	.4946	142.00	3.2019	206.499	187.033	1.9274
83.00	1.2557	44.8931	37.2591	.5187	143.00	3.3527	210.994	190.612	1.9590
84.00	1.2626	46.8764	39.2002	.5424	144.00	3.5025	215.261	193.967	1.9887
85.00	1.2697	48.8588	41.1396	.5659	145.00	3.6499	219.297	197.107	2.0166
86.00	1.2769	50.8412	43.0783	.5891	146.00	3.7940	223.112	200.046	2.0429
87.00	1.2842	52.8245	45.0170	.6120	147.00	3.9345	226.721	202.802	2.0675
88.00	1.2917	54.8097	46.9567	.6347	148.00	4.0711	230.143	205.393	2.0907
89.00	1.2993	56.7979	48.8985	.6571	149.00	4.2038	233.394	207.837	2.1126
90.00	1.3071	58.7900	50.8433	.6794	150.00	4.3328	236.493	210.152	2.1333
91.00	1.3151	60.7873	52.7923	.7015	151.00	4.4582	239.454	212.351	2.1530
92.00	1.3232	62.7908	54.7466	.7234	152.00	4.5802	242.292	214.447	2.1717
93.00	1.3315	64.8018	56.7072	.7451	153.00	4.6989	245.019	216.452	2.1896
94.00	1.3399	66.8214	58.6754	.7667	154.00	4.8147	247.647	218.376	2.2067
95.00	1.3486	68.8508	60.6521	.7882	155.00	4.9276	250.184	220.227	2.2231
96.00	1.3574	70.8910	62.6385	.8096	156.00	5.0380	252.640	222.011	2.2389
97.00	1.3665	72.9433	64.6356	.8308	157.00	5.1458	255.021	223.737	2.2542
98.00	1.3758	75.0086	66.6444	.8520	158.00	5.2514	257.335	225.409	2.2688
99.00	1.3853	77.0879	68.6658	.8731	159.00	5.3549	259.587	227.032	2.2831
100.00	1.3951	79.1822	70.7007	.8942	160.00	5.4563	261.782	228.610	2.2968
101.00	1.4051	81.2924	72.7499	.9152	161.00	5.5559	263.925	230.148	2.3102
102.00	1.4154	83.4193	74.8141	.9361	162.00	5.6537	266.021	231.649	2.3231
103.00	1.4261	85.5637	76.8940	.9570	163.00	5.7499	268.071	233.115	2.3358
104.00	1.4370	87.7262	78.9901	.9779	164.00	5.8445	270.081	234.549	2.3481
105.00	1.4482	89.9074	81.1030	.9988	165.00	5.9376	272.052	235.954	2.3600
106.00	1.4598	92.0814	83.2065	1.0194	166.00	6.0294	273.988	237.332	2.3717
107.00	1.4718	94.2658	85.3182	1.0399	167.00	6.1198	275.890	238.685	2.3832
108.00	1.4842	96.4610	87.4381	1.0603	168.00	6.2090	277.761	240.014	2.3943
109.00	1.4970	98.6670	89.5663	1.0807	169.00	6.2971	279.603	241.320	2.4053
110.00	1.5102	100.884	91.7030	1.1010	170.00	6.3840	281.418	242.607	2.4160
111.00	1.5240	103.113	93.8484	1.1212	171.00	6.4698	283.207	243.873	2.4265
112.00	1.5383	105.359	96.0072	1.1413	172.00	6.5547	284.971	245.122	2.4368
113.00	1.5532	107.608	98.1659	1.1614	173.00	6.6386	286.713	246.354	2.4468
114.00	1.5687	109.881	100.344	1.1814	174.00	6.7215	288.433	247.569	2.4568
115.00	1.5849	112.163	102.528	1.2014	175.00	6.8036	290.132	248.770	2.4665
116.00	1.6018	114.457	104.718	1.2213	176.00	6.8849	291.812	249.956	2.4761
117.00	1.6196	116.744	106.897	1.2410	177.00	6.9653	293.474	251.128	2.4855
118.00	1.6383	119.032	109.071	1.2606	178.00	7.0450	295.118	252.287	2.4947
119.00	1.6580	121.322	111.242	1.2800	179.00	7.1240	296.745	253.435	2.5039
120.00	1.6788	123.609	113.403	1.2992	180.00	7.2023	298.356	254.570	2.5128

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	7.2798	299.952	255.695	2.5217	241.00	11.2472	381.273	312.896	2.9121
182.00	7.3568	301.534	256.809	2.5304	242.00	11.3067	382.497	313.758	2.9171
183.00	7.4331	303.102	257.913	2.5390	243.00	11.3661	383.720	314.620	2.9222
184.00	7.5088	304.657	259.007	2.5475	244.00	11.4253	384.939	315.479	2.9272
185.00	7.5839	306.199	260.092	2.5558	245.00	11.4845	386.157	316.337	2.9322
186.00	7.6585	307.728	261.168	2.5641	246.00	11.5435	387.372	317.194	2.9371
187.00	7.7325	309.246	262.236	2.5722	247.00	11.6023	388.585	318.049	2.9420
188.00	7.8061	310.753	263.296	2.5802	248.00	11.6611	389.796	318.902	2.9469
189.00	7.8791	312.249	264.349	2.5882	249.00	11.7198	391.004	319.754	2.9518
190.00	7.9516	313.735	265.393	2.5960	250.00	11.7783	392.211	320.605	2.9566
191.00	8.0237	315.211	266.431	2.6038	251.00	11.8367	393.415	321.454	2.9614
192.00	8.0953	316.677	267.462	2.6114	252.00	11.8950	394.618	322.302	2.9662
193.00	8.1665	318.134	268.486	2.6190	253.00	11.9533	395.818	323.148	2.9710
194.00	8.2373	319.583	269.504	2.6265	254.00	12.0114	397.016	323.994	2.9757
195.00	8.3076	321.022	270.516	2.6339	255.00	12.0694	398.213	324.837	2.9804
196.00	8.3776	322.454	271.522	2.6412	256.00	12.1273	399.408	325.680	2.9851
197.00	8.4472	323.877	272.522	2.6484	257.00	12.1850	400.600	326.522	2.9897
198.00	8.5163	325.292	273.517	2.6556	258.00	12.2427	401.791	327.362	2.9943
199.00	8.5852	326.701	274.507	2.6627	259.00	12.3003	402.981	328.201	2.9989
200.00	8.6537	328.101	275.492	2.6697	260.00	12.3578	404.168	329.039	3.0035
201.00	8.7218	329.495	276.471	2.6767	261.00	12.4153	405.354	329.875	3.0081
202.00	8.7896	330.882	277.446	2.6836	262.00	12.4726	406.538	330.711	3.0126
203.00	8.8571	332.263	278.416	2.6904	263.00	12.5298	407.720	331.545	3.0171
204.00	8.9243	333.637	279.382	2.6971	264.00	12.5869	408.901	332.379	3.0216
205.00	8.9912	335.005	280.343	2.7038	265.00	12.6440	410.080	333.211	3.0260
206.00	9.0577	336.367	281.301	2.7105	266.00	12.7009	411.258	334.042	3.0305
207.00	9.1240	337.723	282.254	2.7170	267.00	12.7578	412.434	334.873	3.0349
208.00	9.1900	339.074	283.203	2.7235	268.00	12.8146	413.608	335.702	3.0393
209.00	9.2557	340.419	284.149	2.7300	269.00	12.8713	414.781	336.530	3.0436
210.00	9.3212	341.759	285.090	2.7364	270.00	12.9279	415.953	337.357	3.0480
211.00	9.3864	343.093	286.028	2.7427	271.00	12.9845	417.123	338.184	3.0523
212.00	9.4514	344.423	286.963	2.7490	272.00	13.0410	418.291	339.009	3.0566
213.00	9.5161	345.747	287.894	2.7552	273.00	13.0974	419.459	339.833	3.0609
214.00	9.5805	347.067	288.822	2.7614	274.00	13.1537	420.625	340.657	3.0652
215.00	9.6447	348.382	289.747	2.7675	275.00	13.2099	421.789	341.480	3.0694
216.00	9.7087	349.693	290.669	2.7736	276.00	13.2661	422.952	342.301	3.0736
217.00	9.7725	350.999	291.587	2.7797	277.00	13.3222	424.114	343.122	3.0778
218.00	9.8361	352.301	292.503	2.7856	278.00	13.3782	425.275	343.942	3.0820
219.00	9.8994	353.599	293.416	2.7916	279.00	13.4341	426.434	344.761	3.0862
220.00	9.9625	354.893	294.326	2.7975	280.00	13.4900	427.592	345.580	3.0903
221.00	10.0254	356.183	295.233	2.8033	281.00	13.5458	428.749	346.397	3.0944
222.00	10.0882	357.468	296.137	2.8091	282.00	13.6016	429.905	347.214	3.0986
223.00	10.1507	358.751	297.039	2.8149	283.00	13.6572	431.059	348.030	3.1026
224.00	10.2130	360.029	297.939	2.8206	284.00	13.7128	432.212	348.845	3.1067
225.00	10.2752	361.304	298.836	2.8263	285.00	13.7684	433.365	349.660	3.1108
226.00	10.3372	362.575	299.730	2.8319	286.00	13.8239	434.516	350.473	3.1148
227.00	10.3989	363.843	300.623	2.8375	287.00	13.8793	435.665	351.286	3.1188
228.00	10.4606	365.108	301.513	2.8431	288.00	13.9346	436.814	352.099	3.1228
229.00	10.5220	366.369	302.400	2.8486	289.00	13.9899	437.962	352.910	3.1268
230.00	10.5833	367.627	303.286	2.8541	290.00	14.0452	439.108	353.721	3.1307
231.00	10.6444	368.882	304.169	2.8595	291.00	14.1003	440.254	354.531	3.1347
232.00	10.7053	370.134	305.050	2.8649	292.00	14.1555	441.399	355.341	3.1386
233.00	10.7661	371.382	305.930	2.8703	293.00	14.2105	442.542	356.149	3.1425
234.00	10.8268	372.628	306.807	2.8757	294.00	14.2655	443.685	356.958	3.1464
235.00	10.8873	373.871	307.682	2.8810	295.00	14.3205	444.826	357.765	3.1503
236.00	10.9476	375.112	308.556	2.8862	296.00	14.3753	445.967	358.572	3.1541
237.00	11.0078	376.349	309.427	2.8915	297.00	14.4302	447.106	359.378	3.1580
238.00	11.0679	377.584	310.297	2.8967	298.00	14.4850	448.245	360.184	3.1618
239.00	11.1278	378.816	311.165	2.9018	299.00	14.5397	449.383	360.989	3.1656
240.00	11.1875	380.046	312.031	2.9070	300.00	14.5944	450.519	361.793	3.1694

70.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.6668	125.117	113.295	1.2978
					122.00	1.6868	127.578	115.613	1.3182
					123.00	1.7080	130.109	117.995	1.3390
					124.00	1.7303	132.674	120.401	1.3599
65.00	1.1474	9.5757	1.4376	.0224	125.00	1.7540	135.264	122.824	1.3809
66.00	1.1524	11.5856	3.4122	.0531	126.00	1.7790	137.866	125.248	1.4017
67.00	1.1575	13.5988	5.3892	.0834	127.00	1.8057	140.580	127.773	1.4233
68.00	1.1626	15.6139	7.3676	.1132	128.00	1.8342	143.527	130.517	1.4464
69.00	1.1679	17.6300	9.3463	.1427	129.00	1.8648	146.519	133.292	1.4697
70.00	1.1733	19.6460	11.3242	.1717	130.00	1.8975	149.563	136.104	1.4932
71.00	1.1787	21.6609	13.3004	.2003	131.00	1.9329	152.668	138.959	1.5170
72.00	1.1843	23.6741	15.2741	.2284	132.00	1.9711	155.841	141.861	1.5412
73.00	1.1900	25.6847	17.2447	.2562	133.00	2.0125	159.091	144.817	1.5657
74.00	1.1957	27.6924	19.2116	.2835	134.00	2.0576	162.425	147.831	1.5907
75.00	1.2015	29.6965	21.1743	.3104	135.00	2.1068	165.850	150.906	1.6161
76.00	1.2075	31.6968	23.1326	.3369	136.00	2.1606	169.371	154.046	1.6421
77.00	1.2135	33.6932	25.0861	.3630	137.00	2.2194	172.991	157.250	1.6686
78.00	1.2196	35.6854	27.0349	.3887	138.00	2.2837	176.710	160.512	1.6957
79.00	1.2259	37.6737	28.9789	.4140	139.00	2.3537	180.521	163.826	1.7232
80.00	1.2322	39.6581	30.9184	.4390	140.00	2.4298	184.412	167.178	1.7511
81.00	1.2386	41.6389	32.8535	.4636	141.00	2.5118	188.364	170.548	1.7792
82.00	1.2452	43.6166	34.7847	.4878	142.00	2.5995	192.353	173.915	1.8074
83.00	1.2519	45.5917	36.7125	.5118	143.00	2.6923	196.351	177.255	1.8355
84.00	1.2586	47.5647	38.6375	.5354	144.00	2.7896	200.328	180.542	1.8632
85.00	1.2655	49.5364	40.5603	.5587	145.00	2.8905	204.257	183.756	1.8904
86.00	1.2726	51.5076	42.4817	.5818	146.00	2.9940	208.113	186.877	1.9169
87.00	1.2797	53.4792	44.4025	.6046	147.00	3.0992	211.877	189.895	1.9426
88.00	1.2870	55.4520	46.3237	.6271	148.00	3.2054	215.537	192.802	1.9674
89.00	1.2944	57.4272	48.2463	.6495	149.00	3.3118	219.084	195.594	1.9913
90.00	1.3020	59.4057	50.1712	.6716	150.00	3.4179	222.515	198.272	2.0142
91.00	1.3097	61.3886	52.0994	.6935	151.00	3.5233	225.830	200.840	2.0362
92.00	1.3175	63.3769	54.0321	.7152	152.00	3.6277	229.031	203.301	2.0574
93.00	1.3255	65.3719	55.9702	.7368	153.00	3.7307	232.123	205.662	2.0776
94.00	1.3337	67.3746	57.9148	.7582	154.00	3.8322	235.110	207.929	2.0971
95.00	1.3421	69.3861	59.8670	.7795	155.00	3.9322	237.999	210.109	2.1158
96.00	1.3506	71.4074	61.8278	.8006	156.00	4.0306	240.795	212.207	2.1338
97.00	1.3594	73.4396	63.7980	.8217	157.00	4.1274	243.505	214.231	2.1511
98.00	1.3683	75.4836	65.7786	.8427	158.00	4.2225	246.135	216.185	2.1678
99.00	1.3774	77.5402	67.7705	.8635	159.00	4.3161	248.689	218.076	2.1839
100.00	1.3868	79.6105	69.7743	.8843	160.00	4.4080	251.173	219.908	2.1995
101.00	1.3964	81.6950	71.7908	.9051	161.00	4.4985	253.592	221.686	2.2146
102.00	1.4062	83.7945	73.8206	.9258	162.00	4.5875	255.951	223.413	2.2292
103.00	1.4163	85.9096	75.8641	.9464	163.00	4.6751	258.253	225.094	2.2433
104.00	1.4267	88.0408	77.9218	.9670	164.00	4.7613	260.502	226.732	2.2571
105.00	1.4373	90.1885	79.9941	.9876	165.00	4.8462	262.703	228.330	2.2705
106.00	1.4483	92.3265	82.0544	1.0078	166.00	4.9299	264.857	229.891	2.2835
107.00	1.4595	94.4722	84.1202	1.0280	167.00	5.0124	266.969	231.418	2.2962
108.00	1.4711	96.6257	86.1913	1.0480	168.00	5.0937	269.040	232.912	2.3085
109.00	1.4831	98.7869	88.2676	1.0679	169.00	5.1739	271.074	234.377	2.3206
110.00	1.4955	100.956	90.3487	1.0878	170.00	5.2531	273.072	235.813	2.3324
111.00	1.5082	103.132	92.4346	1.1075	171.00	5.3313	275.037	237.223	2.3439
112.00	1.5215	105.321	94.5296	1.1271	172.00	5.4086	276.971	238.609	2.3552
113.00	1.5352	107.508	96.6196	1.1466	173.00	5.4849	278.874	239.972	2.3662
114.00	1.5493	109.713	98.7235	1.1661	174.00	5.5603	280.750	241.312	2.3770
115.00	1.5641	111.921	100.827	1.1854	175.00	5.6349	282.599	242.633	2.3876
116.00	1.5794	114.134	102.931	1.2046	176.00	5.7087	284.424	243.934	2.3980
117.00	1.5954	116.332	105.016	1.2236	177.00	5.7817	286.224	245.217	2.4082
118.00	1.6120	118.521	107.087	1.2423	178.00	5.8539	288.002	246.482	2.4183
119.00	1.6294	120.703	109.146	1.2608	179.00	5.9254	289.759	247.731	2.4281
120.00	1.6477	122.869	111.183	1.2790	180.00	5.9963	291.495	248.965	2.4378

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	6.0665	293.212	250.184	2.4473	241.00	9.5980	378.162	310.086	2.8555
182.00	6.1360	294.910	251.389	2.4566	242.00	9.6503	379.418	310.971	2.8607
183.00	6.2050	296.591	252.581	2.4658	243.00	9.7025	380.672	311.855	2.8659
184.00	6.2733	298.255	253.760	2.4749	244.00	9.7546	381.922	312.736	2.8710
185.00	6.3411	299.902	254.927	2.4838	245.00	9.8065	383.170	313.615	2.8761
186.00	6.4083	301.535	256.082	2.4926	246.00	9.8583	384.415	314.493	2.8812
187.00	6.4750	303.152	257.227	2.5013	247.00	9.9100	385.658	315.369	2.8862
188.00	6.5412	304.756	258.361	2.5099	248.00	9.9616	386.898	316.242	2.8912
189.00	6.6069	306.346	259.485	2.5183	249.00	10.0131	388.135	317.115	2.8962
190.00	6.6721	307.922	260.599	2.5266	250.00	10.0645	389.370	317.985	2.9012
191.00	6.7368	309.487	261.704	2.5348	251.00	10.1157	390.602	318.854	2.9061
192.00	6.8011	311.039	262.800	2.5429	252.00	10.1669	391.832	319.721	2.9110
193.00	6.8650	312.580	263.888	2.5509	253.00	10.2179	393.060	320.586	2.9158
194.00	6.9285	314.110	264.968	2.5588	254.00	10.2689	394.285	321.450	2.9207
195.00	6.9915	315.628	266.040	2.5667	255.00	10.3197	395.508	322.313	2.9255
196.00	7.0541	317.137	267.104	2.5744	256.00	10.3705	396.729	323.174	2.9303
197.00	7.1164	318.636	268.161	2.5820	257.00	10.4211	397.947	324.033	2.9350
198.00	7.1783	320.125	269.211	2.5895	258.00	10.4716	399.164	324.891	2.9397
199.00	7.2399	321.604	270.254	2.5970	259.00	10.5221	400.378	325.747	2.9444
200.00	7.3011	323.075	271.291	2.6044	260.00	10.5724	401.590	326.602	2.9491
201.00	7.3619	324.537	272.321	2.6117	261.00	10.6227	402.800	327.456	2.9537
202.00	7.4224	325.991	273.346	2.6189	262.00	10.6729	404.008	328.309	2.9584
203.00	7.4826	327.437	274.364	2.6260	263.00	10.7229	405.215	329.160	2.9630
204.00	7.5425	328.874	275.377	2.6331	264.00	10.7729	406.419	330.009	2.9675
205.00	7.6021	330.305	276.385	2.6401	265.00	10.8228	407.621	330.858	2.9721
206.00	7.6614	331.727	277.387	2.6470	266.00	10.8727	408.822	331.705	2.9766
207.00	7.7205	333.143	278.384	2.6538	267.00	10.9224	410.020	332.551	2.9811
208.00	7.7792	334.552	279.376	2.6606	268.00	10.9720	411.217	333.395	2.9856
209.00	7.8377	335.954	280.363	2.6674	269.00	11.0216	412.412	334.239	2.9900
210.00	7.8959	337.349	281.346	2.6740	270.00	11.0711	413.606	335.081	2.9944
211.00	7.9538	338.738	282.324	2.6806	271.00	11.1205	414.797	335.922	2.9989
212.00	8.0115	340.121	283.298	2.6872	272.00	11.1699	415.987	336.763	3.0032
213.00	8.0689	341.498	284.267	2.6936	273.00	11.2191	417.176	337.601	3.0076
214.00	8.1261	342.870	285.233	2.7001	274.00	11.2683	418.362	338.439	3.0119
215.00	8.1831	344.235	286.194	2.7064	275.00	11.3174	419.548	339.276	3.0163
216.00	8.2399	345.595	287.152	2.7127	276.00	11.3664	420.731	340.112	3.0206
217.00	8.2964	346.950	288.106	2.7190	277.00	11.4154	421.913	340.947	3.0248
218.00	8.3527	348.299	289.056	2.7252	278.00	11.4643	423.094	341.780	3.0291
219.00	8.4088	349.644	290.002	2.7314	279.00	11.5131	424.273	342.613	3.0333
220.00	8.4647	350.983	290.945	2.7375	280.00	11.5619	425.450	343.445	3.0375
221.00	8.5204	352.318	291.885	2.7435	281.00	11.6106	426.626	344.275	3.0417
222.00	8.5759	353.648	292.821	2.7495	282.00	11.6592	427.801	345.105	3.0459
223.00	8.6312	354.973	293.755	2.7555	283.00	11.7078	428.974	345.934	3.0500
224.00	8.6863	356.294	294.685	2.7614	284.00	11.7563	430.146	346.762	3.0542
225.00	8.7412	357.611	295.612	2.7672	285.00	11.8047	431.317	347.589	3.0583
226.00	8.7960	358.923	296.536	2.7731	286.00	11.8531	432.486	348.415	3.0624
227.00	8.8506	360.232	297.457	2.7788	287.00	11.9014	433.654	349.240	3.0665
228.00	8.9050	361.536	298.375	2.7846	288.00	11.9496	434.820	350.065	3.0705
229.00	8.9592	362.836	299.291	2.7903	289.00	11.9978	435.986	350.888	3.0746
230.00	9.0132	364.132	300.204	2.7959	290.00	12.0459	437.150	351.711	3.0786
231.00	9.0672	365.425	301.114	2.8015	291.00	12.0940	438.312	352.533	3.0826
232.00	9.1209	366.714	302.022	2.8071	292.00	12.1420	439.474	353.354	3.0866
233.00	9.1745	367.999	302.927	2.8126	293.00	12.1899	440.634	354.174	3.0905
234.00	9.2279	369.281	303.830	2.8181	294.00	12.2378	441.794	354.994	3.0945
235.00	9.2812	370.560	304.730	2.8236	295.00	12.2857	442.952	355.813	3.0984
236.00	9.3344	371.835	305.629	2.8290	296.00	12.3335	444.109	356.631	3.1023
237.00	9.3874	373.106	306.524	2.8344	297.00	12.3812	445.265	357.448	3.1062
238.00	9.4402	374.375	307.418	2.8397	298.00	12.4289	446.419	358.264	3.1101
239.00	9.4929	375.640	308.310	2.8450	299.00	12.4765	447.573	359.080	3.1140
240.00	9.5455	376.903	309.199	2.8503	300.00	12.5241	448.725	359.895	3.1178

80.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
65.00	1.1455	10.4140	1.1287	.0175
66.00	1.1504	12.4176	3.0924	.0480
67.00	1.1554	14.4244	5.0585	.0782
68.00	1.1605	16.4332	7.0260	.1080
69.00	1.1657	18.4429	8.9935	.1373
70.00	1.1710	20.4525	10.9602	.1662
71.00	1.1764	22.4609	12.9250	.1947
72.00	1.1819	24.4674	14.8872	.2228
73.00	1.1874	26.4714	16.8461	.2504
74.00	1.1931	28.4721	18.8011	.2777
75.00	1.1988	30.4692	20.7517	.3045
76.00	1.2046	32.4623	22.6975	.3309
77.00	1.2106	34.4512	24.6384	.3569
78.00	1.2166	36.4358	26.5742	.3825
79.00	1.2227	38.4161	28.5050	.4077
80.00	1.2289	40.3923	30.4308	.4326
81.00	1.2352	42.3646	32.3520	.4571
82.00	1.2416	44.3334	34.2688	.4812
83.00	1.2481	46.2993	36.1818	.5050
84.00	1.2548	48.2627	38.0915	.5286
85.00	1.2615	50.2244	39.9986	.5518
86.00	1.2684	52.1852	41.9038	.5747
87.00	1.2753	54.1458	43.8079	.5974
88.00	1.2824	56.1072	45.7119	.6198
89.00	1.2897	58.0704	47.6165	.6420
90.00	1.2970	60.0363	49.5228	.6639
91.00	1.3045	62.0060	51.4318	.6857
92.00	1.3121	63.9805	53.3445	.7073
93.00	1.3199	65.9609	55.2619	.7287
94.00	1.3278	67.9482	57.1849	.7499
95.00	1.3359	69.9434	59.1146	.7711
96.00	1.3442	71.9476	61.0519	.7920
97.00	1.3526	73.9617	62.9977	.8129
98.00	1.3612	75.9865	64.9528	.8337
99.00	1.3700	78.0229	66.9180	.8544
100.00	1.3790	80.0716	68.8938	.8749
101.00	1.3881	82.1334	70.8811	.8955
102.00	1.3976	84.2087	72.8801	.9159
103.00	1.4072	86.2981	74.8914	.9363
104.00	1.4171	88.4019	76.9152	.9566
105.00	1.4272	90.5205	78.9517	.9769
106.00	1.4376	92.6274	80.9743	.9969
107.00	1.4483	94.7399	83.0004	1.0167
108.00	1.4592	96.8579	85.0295	1.0364
109.00	1.4705	98.9810	87.0613	1.0560
110.00	1.4821	101.109	89.0953	1.0754
111.00	1.4940	103.242	91.1311	1.0948
112.00	1.5064	105.383	93.1728	1.1140
113.00	1.5191	107.520	95.2062	1.1330
114.00	1.5322	109.670	97.2495	1.1520
115.00	1.5458	111.819	99.2886	1.1708
116.00	1.5598	113.967	101.323	1.1895
117.00	1.5744	116.096	103.334	1.2078
118.00	1.5895	118.210	105.325	1.2259
119.00	1.6052	120.309	107.297	1.2437
120.00	1.6215	122.385	109.241	1.2612
121.00	1.6385	124.534	111.252	1.2792
122.00	1.6562	126.887	113.461	1.2987
123.00	1.6748	129.299	115.723	1.3185
124.00	1.6941	131.733	118.000	1.3383
125.00	1.7144	134.178	120.281	1.3581
126.00	1.7357	136.619	122.550	1.3777
127.00	1.7581	139.155	124.904	1.3979
128.00	1.7817	141.903	127.461	1.4195
129.00	1.8066	144.673	130.029	1.4410
130.00	1.8329	147.470	132.613	1.4626
131.00	1.8607	150.298	135.215	1.4843
132.00	1.8903	153.161	137.838	1.5061
133.00	1.9218	156.064	140.486	1.5280
134.00	1.9552	159.010	143.160	1.5500
135.00	1.9909	162.002	145.864	1.5723
136.00	2.0291	165.046	148.598	1.5947
137.00	2.0698	168.141	151.363	1.6174
138.00	2.1134	171.292	154.160	1.6403
139.00	2.1600	174.497	156.987	1.6635
140.00	2.2098	177.755	159.842	1.6868
141.00	2.2630	181.063	162.719	1.7104
142.00	2.3196	184.416	165.614	1.7341
143.00	2.3796	187.806	168.518	1.7579
144.00	2.4429	191.224	171.422	1.7817
145.00	2.5096	194.659	174.316	1.8054
146.00	2.5793	198.097	177.190	1.8291
147.00	2.6518	201.527	180.032	1.8525
148.00	2.7267	204.935	182.832	1.8756
149.00	2.8037	208.309	185.582	1.8983
150.00	2.8823	211.638	188.274	1.9206
151.00	2.9623	214.915	190.903	1.9424
152.00	3.0432	218.132	193.464	1.9636
153.00	3.1247	221.284	195.954	1.9843
154.00	3.2066	224.367	198.374	2.0043
155.00	3.2885	227.380	200.723	2.0238
156.00	3.3703	230.322	203.002	2.0428
157.00	3.4517	233.193	205.214	2.0611
158.00	3.5327	235.995	207.359	2.0789
159.00	3.6131	238.730	209.442	2.0962
160.00	3.6928	241.399	211.465	2.1129
161.00	3.7718	244.005	213.431	2.1291
162.00	3.8499	246.550	215.343	2.1449
163.00	3.9273	249.038	217.204	2.1602
164.00	4.0038	251.472	219.017	2.1751
165.00	4.0794	253.853	220.785	2.1896
166.00	4.1542	256.184	222.510	2.2036
167.00	4.2282	258.469	224.195	2.2174
168.00	4.3013	260.708	225.842	2.2307
169.00	4.3735	262.906	227.454	2.2438
170.00	4.4450	265.064	229.033	2.2565
171.00	4.5156	267.183	230.579	2.2689
172.00	4.5855	269.267	232.097	2.2811
173.00	4.6546	271.316	233.586	2.2930
174.00	4.7230	273.333	235.049	2.3046
175.00	4.7907	275.319	236.486	2.3160
176.00	4.8576	277.276	237.900	2.3271
177.00	4.9239	279.205	239.292	2.3381
178.00	4.9896	281.108	240.663	2.3488
179.00	5.0546	282.986	242.013	2.3593
180.00	5.1189	284.839	243.345	2.3696

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	5.1827	286.670	244.658	2.3798	241.00	8.3705	375.142	307.290	2.8053
182.00	5.2459	288.478	245.955	2.3897	242.00	8.4174	376.429	308.198	2.8107
183.00	5.3086	290.266	247.235	2.3995	243.00	8.4641	377.713	309.103	2.8159
184.00	5.3707	292.034	248.499	2.4092	244.00	8.5107	378.994	310.007	2.8212
185.00	5.4323	293.783	249.748	2.4186	245.00	8.5571	380.271	310.907	2.8264
186.00	5.4934	295.513	250.984	2.4280	246.00	8.6035	381.546	311.806	2.8316
187.00	5.5540	297.226	252.205	2.4372	247.00	8.6497	382.817	312.703	2.8368
188.00	5.6141	298.922	253.414	2.4462	248.00	8.6959	384.086	313.597	2.8419
189.00	5.6738	300.602	254.611	2.4551	249.00	8.7419	385.351	314.489	2.8470
190.00	5.7330	302.267	255.795	2.4639	250.00	8.7878	386.613	315.380	2.8521
191.00	5.7918	303.916	256.969	2.4726	251.00	8.8336	387.873	316.268	2.8571
192.00	5.8501	305.552	258.131	2.4811	252.00	8.8793	389.130	317.155	2.8621
193.00	5.9081	307.174	259.283	2.4895	253.00	8.9249	390.384	318.039	2.8670
194.00	5.9656	308.782	260.425	2.4978	254.00	8.9704	391.635	318.922	2.8720
195.00	6.0228	310.378	261.558	2.5060	255.00	9.0157	392.884	319.803	2.8769
196.00	6.0796	311.962	262.681	2.5141	256.00	9.0610	394.131	320.682	2.8818
197.00	6.1360	313.534	263.795	2.5221	257.00	9.1062	395.374	321.559	2.8866
198.00	6.1921	315.094	264.901	2.5300	258.00	9.1513	396.615	322.435	2.8914
199.00	6.2478	316.644	265.999	2.5378	259.00	9.1963	397.854	323.309	2.8962
200.00	6.3032	318.182	267.088	2.5456	260.00	9.2413	399.091	324.181	2.9010
201.00	6.3583	319.711	268.171	2.5532	261.00	9.2861	400.325	325.052	2.9057
202.00	6.4131	321.230	269.245	2.5607	262.00	9.3308	401.556	325.921	2.9104
203.00	6.4675	322.739	270.313	2.5682	263.00	9.3755	402.786	326.788	2.9151
204.00	6.5217	324.239	271.374	2.5755	264.00	9.4200	404.013	327.654	2.9198
205.00	6.5756	325.729	272.428	2.5828	265.00	9.4645	405.238	328.519	2.9244
206.00	6.6292	327.211	273.475	2.5900	266.00	9.5089	406.461	329.382	2.9290
207.00	6.6825	328.685	274.517	2.5972	267.00	9.5532	407.682	330.244	2.9336
208.00	6.7355	330.151	275.553	2.6042	268.00	9.5975	408.901	331.104	2.9382
209.00	6.7883	331.608	276.582	2.6112	269.00	9.6416	410.118	331.963	2.9427
210.00	6.8409	333.058	277.606	2.6182	270.00	9.6857	411.332	332.820	2.9472
211.00	6.8931	334.501	278.625	2.6250	271.00	9.7297	412.545	333.676	2.9517
212.00	6.9452	335.936	279.639	2.6318	272.00	9.7736	413.756	334.531	2.9561
213.00	6.9970	337.364	280.647	2.6385	273.00	9.8175	414.965	335.384	2.9606
214.00	7.0486	338.786	281.650	2.6452	274.00	9.8613	416.172	336.237	2.9650
215.00	7.0999	340.201	282.649	2.6518	275.00	9.9050	417.377	337.087	2.9694
216.00	7.1510	341.609	283.643	2.6583	276.00	9.9486	418.581	337.937	2.9738
217.00	7.2020	343.011	284.632	2.6648	277.00	9.9922	419.782	338.786	2.9781
218.00	7.2527	344.407	285.617	2.6712	278.00	10.0357	420.982	339.633	2.9824
219.00	7.3032	345.797	286.598	2.6776	279.00	10.0791	422.181	340.479	2.9867
220.00	7.3535	347.181	287.574	2.6839	280.00	10.1225	423.377	341.324	2.9910
221.00	7.4036	348.560	288.547	2.6901	281.00	10.1658	424.572	342.168	2.9953
222.00	7.4535	349.933	289.515	2.6963	282.00	10.2090	425.765	343.011	2.9995
223.00	7.5032	351.301	290.480	2.7025	283.00	10.2522	426.957	343.853	3.0037
224.00	7.5528	352.663	291.441	2.7086	284.00	10.2953	428.147	344.693	3.0079
225.00	7.6021	354.021	292.398	2.7146	285.00	10.3383	429.335	345.533	3.0121
226.00	7.6513	355.374	293.352	2.7206	286.00	10.3813	430.522	346.371	3.0163
227.00	7.7003	356.721	294.302	2.7266	287.00	10.4243	431.708	347.209	3.0204
228.00	7.7492	358.064	295.249	2.7325	288.00	10.4671	432.892	348.046	3.0245
229.00	7.7979	359.403	296.193	2.7383	289.00	10.5099	434.074	348.881	3.0286
230.00	7.8464	360.737	297.134	2.7441	290.00	10.5527	435.256	349.716	3.0327
231.00	7.8948	362.066	298.071	2.7499	291.00	10.5954	436.435	350.549	3.0368
232.00	7.9430	363.392	299.006	2.7556	292.00	10.6380	437.613	351.382	3.0408
233.00	7.9911	364.713	299.937	2.7613	293.00	10.6806	438.790	352.214	3.0448
234.00	8.0390	366.030	300.866	2.7669	294.00	10.7231	439.966	353.045	3.0488
235.00	8.0868	367.343	301.791	2.7725	295.00	10.7656	441.140	353.875	3.0528
236.00	8.1344	368.652	302.714	2.7781	296.00	10.8080	442.313	354.704	3.0568
237.00	8.1819	369.957	303.635	2.7836	297.00	10.8504	443.485	355.532	3.0607
238.00	8.2292	371.259	304.552	2.7891	298.00	10.8927	444.655	356.359	3.0647
239.00	8.2765	372.556	305.468	2.7945	299.00	10.9349	445.824	357.186	3.0686
240.00	8.3236	373.851	306.380	2.8000	300.00	10.9772	446.992	358.011	3.0725

90.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.6144	124.162	109.440	1.2625
					122.00	1.6303	126.432	111.565	1.2813
					123.00	1.6469	128.756	113.737	1.3004
					124.00	1.6641	131.093	115.917	1.3195
					125.00	1.6820	133.433	118.094	1.3384
66.00	1.1485	13.2522	2.7789	.0430	126.00	1.7007	135.760	120.251	1.3571
67.00	1.1534	15.2529	4.7345	.0731	127.00	1.7202	138.171	122.485	1.3763
68.00	1.1585	17.2556	6.6913	.1028	128.00	1.7405	140.783	124.911	1.3968
69.00	1.1636	19.2591	8.6481	.1321	129.00	1.7617	143.405	127.340	1.4172
70.00	1.1688	21.2624	10.6039	.1609	130.00	1.7840	146.040	129.772	1.4375
71.00	1.1741	23.2646	12.5577	.1893	131.00	1.8073	148.691	132.210	1.4578
72.00	1.1795	25.2648	14.5088	.2173	132.00	1.8317	151.360	134.656	1.4781
73.00	1.1849	27.2622	16.4564	.2448	133.00	1.8574	154.051	137.113	1.4984
74.00	1.1905	29.2564	18.3999	.2719	134.00	1.8844	156.766	139.582	1.5188
75.00	1.1961	31.2468	20.3389	.2987	135.00	1.9128	159.508	142.064	1.5392
76.00	1.2019	33.2330	22.2728	.3250	136.00	1.9428	162.278	144.561	1.5596
77.00	1.2077	35.2148	24.2016	.3509	137.00	1.9743	165.078	147.074	1.5801
78.00	1.2136	37.1921	26.1250	.3764	138.00	2.0076	167.911	149.603	1.6007
79.00	1.2196	39.1649	28.0431	.4015	139.00	2.0427	170.776	152.148	1.6214
80.00	1.2257	41.1333	29.9560	.4263	140.00	2.0797	173.674	154.709	1.6422
81.00	1.2319	43.0976	31.8638	.4507	141.00	2.1188	176.606	157.284	1.6631
82.00	1.2382	45.0581	33.7671	.4747	142.00	2.1599	179.569	159.872	1.6840
83.00	1.2445	47.0153	35.6661	.4985	143.00	2.2033	182.561	162.469	1.7050
84.00	1.2510	48.9698	37.5614	.5219	144.00	2.2488	185.581	165.074	1.7260
85.00	1.2576	50.9221	39.4537	.5450	145.00	2.2965	188.623	167.680	1.7471
86.00	1.2643	52.8731	41.3436	.5678	146.00	2.3464	191.683	170.285	1.7681
87.00	1.2711	54.8236	43.2320	.5903	147.00	2.3985	194.755	172.883	1.7891
88.00	1.2780	56.7744	45.1197	.6126	148.00	2.4527	197.834	175.468	1.8100
89.00	1.2851	58.7264	47.0076	.6347	149.00	2.5088	200.912	178.034	1.8307
90.00	1.2922	60.6807	48.8966	.6565	150.00	2.5667	203.983	180.577	1.8512
91.00	1.2995	62.6382	50.7877	.6782	151.00	2.6263	207.040	183.090	1.8715
92.00	1.3069	64.5999	52.6818	.6996	152.00	2.6874	210.076	185.569	1.8916
93.00	1.3145	66.5669	54.5799	.7209	153.00	2.7497	213.086	188.011	1.9113
94.00	1.3222	68.5401	56.4830	.7420	154.00	2.8132	216.064	190.410	1.9307
95.00	1.3300	70.5206	58.3920	.7629	155.00	2.8776	219.006	192.765	1.9498
96.00	1.3380	72.5092	60.3078	.7837	156.00	2.9427	221.908	195.073	1.9684
97.00	1.3461	74.5068	62.2312	.8044	157.00	3.0084	224.766	197.333	1.9867
98.00	1.3544	76.5143	64.1630	.8250	158.00	3.0744	227.580	199.543	2.0046
99.00	1.3629	78.5325	66.1039	.8455	159.00	3.1407	230.346	201.705	2.0220
100.00	1.3716	80.5619	68.0544	.8659	160.00	3.2071	233.064	203.818	2.0391
101.00	1.3804	82.6033	70.0152	.8862	161.00	3.2735	235.734	205.882	2.0557
102.00	1.3894	84.6571	71.9867	.9065	162.00	3.3398	238.356	207.899	2.0719
103.00	1.3987	86.7237	73.9690	.9266	163.00	3.4060	240.930	209.870	2.0878
104.00	1.4081	88.8034	75.9626	.9467	164.00	3.4718	243.457	211.797	2.1032
105.00	1.4178	90.8964	77.9674	.9667	165.00	3.5374	245.938	213.680	2.1183
106.00	1.4277	92.9761	79.9569	.9865	166.00	3.6026	248.374	215.521	2.1330
107.00	1.4378	95.0598	81.9480	1.0060	167.00	3.6673	250.766	217.323	2.1474
108.00	1.4482	97.1470	83.9405	1.0255	168.00	3.7317	253.116	219.086	2.1614
109.00	1.4589	99.2375	85.9336	1.0447	169.00	3.7955	255.426	220.813	2.1751
110.00	1.4698	101.331	87.9269	1.0639	170.00	3.8589	257.695	222.505	2.1885
111.00	1.4811	103.426	89.9198	1.0829	171.00	3.9218	259.927	224.163	2.2016
112.00	1.4927	105.528	91.9163	1.1017	172.00	3.9842	262.123	225.790	2.2144
113.00	1.5046	107.622	93.9017	1.1204	173.00	4.0461	264.283	227.386	2.2269
114.00	1.5168	109.727	95.8943	1.1390	174.00	4.1074	266.410	228.954	2.2392
115.00	1.5294	111.827	97.8796	1.1574	175.00	4.1682	268.505	230.494	2.2512
116.00	1.5425	113.923	99.8570	1.1756	176.00	4.2286	270.569	232.008	2.2630
117.00	1.5559	115.996	101.807	1.1934	177.00	4.2884	272.604	233.497	2.2745
118.00	1.5698	118.049	103.734	1.2110	178.00	4.3477	274.610	234.962	2.2858
119.00	1.5841	120.083	105.637	1.2282	179.00	4.4065	276.589	236.405	2.2969
120.00	1.5990	122.089	107.507	1.2451	180.00	4.4648	278.542	237.826	2.3078

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	4.5227	280.470	239.227	2.3184	241.00	7.4246	372.224	304.518	2.7601
182.00	4.5801	282.374	240.607	2.3289	242.00	7.4670	373.541	305.448	2.7655
183.00	4.6370	284.255	241.970	2.3392	243.00	7.5094	374.855	306.375	2.7710
184.00	4.6935	286.115	243.314	2.3494	244.00	7.5516	376.165	307.300	2.7763
185.00	4.7495	287.953	244.641	2.3593	245.00	7.5937	377.471	308.222	2.7817
186.00	4.8051	289.771	245.952	2.3691	246.00	7.6357	378.774	309.142	2.7870
187.00	4.8603	291.569	247.247	2.3788	247.00	7.6776	380.073	310.059	2.7923
188.00	4.9150	293.349	248.527	2.3883	248.00	7.7194	381.369	310.974	2.7975
189.00	4.9694	295.110	249.793	2.3976	249.00	7.7611	382.662	311.886	2.8027
190.00	5.0233	296.855	251.046	2.4068	250.00	7.8027	383.951	312.796	2.8079
191.00	5.0769	298.582	252.285	2.4159	251.00	7.8442	385.237	313.704	2.8130
192.00	5.1301	300.294	253.511	2.4248	252.00	7.8855	386.520	314.610	2.8181
193.00	5.1830	301.990	254.725	2.4336	253.00	7.9268	387.800	315.513	2.8232
194.00	5.2355	303.672	255.928	2.4423	254.00	7.9680	389.077	316.415	2.8282
195.00	5.2876	305.339	257.120	2.4509	255.00	8.0091	390.351	317.314	2.8332
196.00	5.3395	306.992	258.300	2.4594	256.00	8.0500	391.621	318.211	2.8382
197.00	5.3909	308.632	259.471	2.4677	257.00	8.0909	392.890	319.106	2.8431
198.00	5.4421	310.259	260.631	2.4759	258.00	8.1317	394.155	320.000	2.8480
199.00	5.4930	311.874	261.782	2.4841	259.00	8.1724	395.417	320.891	2.8529
200.00	5.5435	313.476	262.924	2.4921	260.00	8.2131	396.677	321.780	2.8578
201.00	5.5938	315.067	264.056	2.5000	261.00	8.2536	397.934	322.668	2.8626
202.00	5.6437	316.647	265.180	2.5079	262.00	8.2940	399.189	323.554	2.8674
203.00	5.6934	318.216	266.296	2.5156	263.00	8.3344	400.441	324.438	2.8722
204.00	5.7428	319.774	267.404	2.5233	264.00	8.3747	401.691	325.320	2.8769
205.00	5.7919	321.322	268.504	2.5309	265.00	8.4149	402.938	326.200	2.8816
206.00	5.8408	322.860	269.597	2.5383	266.00	8.4550	404.183	327.079	2.8863
207.00	5.8894	324.389	270.682	2.5457	267.00	8.4951	405.425	327.956	2.8910
208.00	5.9378	325.909	271.761	2.5531	268.00	8.5350	406.665	328.832	2.8956
209.00	5.9859	327.419	272.832	2.5603	269.00	8.5749	407.903	329.706	2.9002
210.00	6.0338	328.921	273.897	2.5675	270.00	8.6147	409.138	330.578	2.9048
211.00	6.0814	330.414	274.956	2.5746	271.00	8.6545	410.371	331.449	2.9094
212.00	6.1289	331.899	276.009	2.5816	272.00	8.6941	411.602	332.319	2.9139
213.00	6.1761	333.376	277.055	2.5885	273.00	8.7337	412.831	333.186	2.9184
214.00	6.2230	334.846	278.096	2.5954	274.00	8.7732	414.058	334.053	2.9229
215.00	6.2698	336.308	279.132	2.6022	275.00	8.8127	415.283	334.918	2.9274
216.00	6.3164	337.762	280.162	2.6090	276.00	8.8521	416.506	335.782	2.9318
217.00	6.3627	339.209	281.186	2.6157	277.00	8.8914	417.727	336.644	2.9362
218.00	6.4089	340.650	282.206	2.6223	278.00	8.9307	418.945	337.505	2.9406
219.00	6.4549	342.084	283.220	2.6289	279.00	8.9698	420.162	338.364	2.9450
220.00	6.5006	343.511	284.230	2.6354	280.00	9.0090	421.377	339.222	2.9493
221.00	6.5462	344.932	285.235	2.6418	281.00	9.0480	422.590	340.079	2.9537
222.00	6.5917	346.346	286.235	2.6482	282.00	9.0870	423.802	340.935	2.9580
223.00	6.6369	347.755	287.231	2.6545	283.00	9.1259	425.011	341.790	2.9622
224.00	6.6819	349.157	288.223	2.6608	284.00	9.1648	426.219	342.643	2.9665
225.00	6.7268	350.554	289.210	2.6670	285.00	9.2036	427.425	343.495	2.9707
226.00	6.7716	351.945	290.194	2.6732	286.00	9.2424	428.629	344.346	2.9750
227.00	6.8161	353.331	291.173	2.6793	287.00	9.2811	429.832	345.195	2.9792
228.00	6.8605	354.711	292.149	2.6854	288.00	9.3197	431.033	346.044	2.9833
229.00	6.9048	356.087	293.120	2.6914	289.00	9.3583	432.232	346.891	2.9875
230.00	6.9489	357.457	294.088	2.6974	290.00	9.3968	433.430	347.738	2.9916
231.00	6.9928	358.822	295.053	2.7033	291.00	9.4353	434.626	348.583	2.9957
232.00	7.0366	360.182	296.014	2.7092	292.00	9.4737	435.820	349.427	2.9998
233.00	7.0802	361.538	296.971	2.7150	293.00	9.5121	437.013	350.270	3.0039
234.00	7.1238	362.889	297.925	2.7208	294.00	9.5504	438.205	351.112	3.0080
235.00	7.1671	364.235	298.876	2.7265	295.00	9.5886	439.395	351.954	3.0120
236.00	7.2104	365.577	299.824	2.7322	296.00	9.6268	440.583	352.794	3.0160
237.00	7.2535	366.915	300.769	2.7379	297.00	9.6650	441.770	353.633	3.0200
238.00	7.2964	368.248	301.710	2.7435	298.00	9.7031	442.956	354.471	3.0240
239.00	7.3393	369.577	302.649	2.7491	299.00	9.7412	444.140	355.308	3.0280
240.00	7.3820	370.903	303.585	2.7546	300.00	9.7792	445.323	356.144	3.0319

100.00 ATMOSPHERE ISO8AR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.5933	123.950	107.806	1.2473
					122.00	1.6079	126.155	109.863	1.2656
					123.00	1.6229	128.409	111.964	1.2841
					124.00	1.6385	130.671	114.068	1.3026
					125.00	1.6547	132.931	116.165	1.3209
66.00	1.1466	14.0893	2.4716	.0381	126.00	1.6714	135.172	118.236	1.3388
67.00	1.1515	16.0841	4.4169	.0681	127.00	1.6887	137.490	120.379	1.3573
68.00	1.1564	18.0808	6.3633	.0977	128.00	1.7067	140.002	122.709	1.3770
69.00	1.1615	20.0784	8.3097	.1269	129.00	1.7254	142.517	125.034	1.3966
70.00	1.1666	22.0757	10.2550	.1556	130.00	1.7448	145.036	127.357	1.4161
71.00	1.1718	24.0719	12.1983	.1839	131.00	1.7650	147.562	129.678	1.4354
72.00	1.1771	26.0659	14.1386	.2118	132.00	1.7860	150.097	132.000	1.4547
73.00	1.1825	28.0572	16.0754	.2393	133.00	1.8079	152.643	134.325	1.4739
74.00	1.1880	30.0450	18.0078	.2663	134.00	1.8308	155.203	136.653	1.4931
75.00	1.1935	32.0290	19.9355	.2929	135.00	1.8546	157.778	138.987	1.5122
76.00	1.1992	34.0086	21.8581	.3192	136.00	1.8795	160.370	141.326	1.5314
77.00	1.2049	35.9837	23.7752	.3450	137.00	1.9055	162.980	143.673	1.5505
78.00	1.2107	37.9540	25.6868	.3704	138.00	1.9326	165.609	146.027	1.5696
79.00	1.2166	39.9197	27.5928	.3954	139.00	1.9610	168.259	148.389	1.5887
80.00	1.2226	41.8808	29.4933	.4201	140.00	1.9907	170.929	150.759	1.6079
81.00	1.2286	43.8375	31.3885	.4444	141.00	2.0217	173.621	153.136	1.6270
82.00	1.2348	45.7901	33.2787	.4684	142.00	2.0541	176.334	155.521	1.6462
83.00	1.2410	47.7392	35.1645	.4920	143.00	2.0880	179.069	157.912	1.6654
84.00	1.2474	49.6852	37.0462	.5153	144.00	2.1233	181.822	160.308	1.6846
85.00	1.2538	51.6288	38.9244	.5383	145.00	2.1602	184.595	162.707	1.7038
86.00	1.2604	53.5707	40.8000	.5610	146.00	2.1985	187.384	165.107	1.7229
87.00	1.2670	55.5117	42.6736	.5835	147.00	2.2385	190.187	167.506	1.7421
88.00	1.2738	57.4526	44.5460	.6056	148.00	2.2799	193.002	169.901	1.7612
89.00	1.2806	59.3943	46.4182	.6276	149.00	2.3229	195.825	172.288	1.7802
90.00	1.2876	61.3378	48.2910	.6493	150.00	2.3673	198.652	174.666	1.7991
91.00	1.2947	63.2840	50.1653	.6708	151.00	2.4131	201.481	177.030	1.8179
92.00	1.3019	65.2339	52.0421	.6921	152.00	2.4603	204.306	179.377	1.8365
93.00	1.3093	67.1886	53.9224	.7132	153.00	2.5087	207.124	181.704	1.8550
94.00	1.3167	69.1488	55.8070	.7342	154.00	2.5583	209.931	184.009	1.8733
95.00	1.3243	71.1157	57.6968	.7550	155.00	2.6090	212.723	186.288	1.8914
96.00	1.3321	73.0900	59.5927	.7757	156.00	2.6606	215.497	188.538	1.9092
97.00	1.3400	75.0727	61.4955	.7962	157.00	2.7132	218.249	190.758	1.9268
98.00	1.3480	77.0645	63.4060	.8167	158.00	2.7664	220.976	192.945	1.9441
99.00	1.3562	79.0662	65.3246	.8370	159.00	2.8203	223.676	195.099	1.9611
100.00	1.3645	81.0782	67.2521	.8572	160.00	2.8747	226.346	197.217	1.9779
101.00	1.3730	83.1013	69.1889	.8773	161.00	2.9296	228.984	199.300	1.9943
102.00	1.3817	85.1358	71.1353	.8974	162.00	2.9848	231.590	201.347	2.0104
103.00	1.3906	87.1820	73.0917	.9174	163.00	3.0403	234.162	203.357	2.0263
104.00	1.3997	89.2402	75.0580	.9372	164.00	3.0959	236.699	205.330	2.0418
105.00	1.4089	91.3105	77.0345	.9571	165.00	3.1516	239.201	207.267	2.0570
106.00	1.4184	93.3662	78.9943	.9765	166.00	3.2074	241.667	209.169	2.0719
107.00	1.4281	95.4245	80.9545	.9959	167.00	3.2631	244.099	211.035	2.0865
108.00	1.4380	97.4850	82.9145	1.0150	168.00	3.3188	246.495	212.867	2.1008
109.00	1.4481	99.5470	84.8738	1.0341	169.00	3.3743	248.856	214.666	2.1148
110.00	1.4585	101.610	86.8315	1.0529	170.00	3.4297	251.183	216.432	2.1285
111.00	1.4692	103.674	88.7871	1.0716	171.00	3.4848	253.476	218.166	2.1420
112.00	1.4801	105.742	90.7444	1.0902	172.00	3.5398	255.737	219.870	2.1552
113.00	1.4913	107.799	92.6886	1.1085	173.00	3.5945	257.965	221.544	2.1681
114.00	1.5028	109.865	94.6379	1.1268	174.00	3.6489	260.162	223.189	2.1808
115.00	1.5147	111.925	96.5775	1.1448	175.00	3.7030	262.328	224.807	2.1932
116.00	1.5268	113.977	98.5069	1.1626	176.00	3.7569	264.465	226.399	2.2054
117.00	1.5393	116.003	100.406	1.1801	177.00	3.8104	266.574	227.965	2.2173
118.00	1.5522	118.007	102.279	1.1972	178.00	3.8636	268.654	229.507	2.2290
119.00	1.5655	119.988	104.126	1.2140	179.00	3.9164	270.708	231.025	2.2405
120.00	1.5792	121.937	105.936	1.2305	180.00	3.9690	272.736	232.520	2.2518

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	4.0211	274.738	233.994	2.2629	241.00	6.6758	369.420	301.777	2.7189
182.00	4.0730	276.717	235.447	2.2738	242.00	6.7147	370.766	302.729	2.7244
183.00	4.1245	278.672	236.880	2.2845	243.00	6.7535	372.108	303.678	2.7300
184.00	4.1757	280.604	238.294	2.2951	244.00	6.7921	373.446	304.625	2.7355
185.00	4.2265	282.514	239.689	2.3054	245.00	6.8307	374.779	305.568	2.7409
186.00	4.2770	284.404	241.067	2.3156	246.00	6.8691	376.109	306.508	2.7463
187.00	4.3272	286.273	242.428	2.3256	247.00	6.9075	377.435	307.446	2.7517
188.00	4.3770	288.122	243.772	2.3355	248.00	6.9457	378.758	308.381	2.7571
189.00	4.4266	289.952	245.101	2.3452	249.00	6.9838	380.076	309.313	2.7624
190.00	4.4758	291.765	246.414	2.3548	250.00	7.0218	381.391	310.242	2.7676
191.00	4.5246	293.559	247.713	2.3642	251.00	7.0598	382.702	311.169	2.7729
192.00	4.5732	295.336	248.998	2.3735	252.00	7.0976	384.010	312.094	2.7781
193.00	4.6215	297.097	250.270	2.3826	253.00	7.1354	385.315	313.016	2.7832
194.00	4.6695	298.842	251.529	2.3916	254.00	7.1730	386.616	313.936	2.7884
195.00	4.7172	300.572	252.775	2.4005	255.00	7.2106	387.914	314.853	2.7935
196.00	4.7646	302.286	254.009	2.4093	256.00	7.2480	389.209	315.768	2.7985
197.00	4.8117	303.986	255.232	2.4179	257.00	7.2854	390.500	316.681	2.8036
198.00	4.8585	305.673	256.444	2.4265	258.00	7.3227	391.789	317.591	2.8086
199.00	4.9051	307.345	257.645	2.4349	259.00	7.3599	393.074	318.500	2.8136
200.00	4.9514	309.005	258.835	2.4432	260.00	7.3970	394.356	319.406	2.8185
201.00	4.9974	310.652	260.016	2.4514	261.00	7.4341	395.636	320.310	2.8234
202.00	5.0432	312.287	261.187	2.4596	262.00	7.4710	396.912	321.213	2.8283
203.00	5.0887	313.910	262.349	2.4676	263.00	7.5079	398.186	322.113	2.8331
204.00	5.1340	315.522	263.501	2.4755	264.00	7.5447	399.457	323.011	2.8380
205.00	5.1791	317.122	264.645	2.4833	265.00	7.5814	400.726	323.907	2.8428
206.00	5.2239	318.712	265.781	2.4910	266.00	7.6180	401.991	324.802	2.8475
207.00	5.2685	320.291	266.908	2.4987	267.00	7.6546	403.254	325.694	2.8523
208.00	5.3128	321.860	268.028	2.5063	268.00	7.6911	404.515	326.585	2.8570
209.00	5.3570	323.419	269.140	2.5137	269.00	7.7275	405.773	327.474	2.8617
210.00	5.4009	324.969	270.244	2.5211	270.00	7.7638	407.028	328.361	2.8663
211.00	5.4446	326.509	271.342	2.5284	271.00	7.8001	408.281	329.246	2.8710
212.00	5.4881	328.040	272.432	2.5357	272.00	7.8363	409.532	330.130	2.8756
213.00	5.5314	329.563	273.516	2.5429	273.00	7.8725	410.780	331.012	2.8801
214.00	5.5745	331.077	274.593	2.5499	274.00	7.9085	412.026	331.893	2.8847
215.00	5.6174	332.582	275.664	2.5570	275.00	7.9445	413.269	332.772	2.8892
216.00	5.6601	334.080	276.729	2.5639	276.00	7.9805	414.511	333.649	2.8937
217.00	5.7026	335.570	277.788	2.5708	277.00	8.0163	415.750	334.525	2.8982
218.00	5.7450	337.052	278.841	2.5776	278.00	8.0521	416.987	335.399	2.9027
219.00	5.7871	338.526	279.888	2.5844	279.00	8.0879	418.222	336.272	2.9071
220.00	5.8291	339.994	280.930	2.5910	280.00	8.1236	419.455	337.143	2.9115
221.00	5.8709	341.454	281.967	2.5977	281.00	8.1592	420.685	338.013	2.9159
222.00	5.9126	342.908	282.998	2.6042	282.00	8.1947	421.914	338.881	2.9203
223.00	5.9541	344.354	284.025	2.6107	283.00	8.2302	423.141	339.748	2.9246
224.00	5.9954	345.795	285.047	2.6172	284.00	8.2657	424.366	340.614	2.9289
225.00	6.0365	347.229	286.063	2.6236	285.00	8.3011	425.589	341.478	2.9332
226.00	6.0775	348.656	287.076	2.6299	286.00	8.3364	426.810	342.341	2.9375
227.00	6.1184	350.078	288.083	2.6362	287.00	8.3717	428.029	343.203	2.9418
228.00	6.1591	351.494	289.087	2.6424	288.00	8.4069	429.246	344.063	2.9460
229.00	6.1996	352.904	290.086	2.6486	289.00	8.4420	430.461	344.923	2.9502
230.00	6.2401	354.308	291.081	2.6547	290.00	8.4771	431.675	345.780	2.9544
231.00	6.2803	355.707	292.072	2.6608	291.00	8.5122	432.887	346.637	2.9586
232.00	6.3205	357.100	293.058	2.6668	292.00	8.5472	434.097	347.493	2.9627
233.00	6.3605	358.489	294.041	2.6727	293.00	8.5821	435.305	348.347	2.9669
234.00	6.4003	359.872	295.021	2.6787	294.00	8.6170	436.512	349.200	2.9710
235.00	6.4400	361.250	295.996	2.6845	295.00	8.6519	437.717	350.052	2.9751
236.00	6.4797	362.623	296.968	2.6904	296.00	8.6867	438.921	350.903	2.9791
237.00	6.5191	363.992	297.937	2.6962	297.00	8.7214	440.123	351.753	2.9832
238.00	6.5585	365.355	298.902	2.7019	298.00	8.7561	441.323	352.602	2.9872
239.00	6.5977	366.715	299.863	2.7076	299.00	8.7908	442.522	353.450	2.9912
240.00	6.6368	368.069	300.822	2.7133	300.00	8.8254	443.719	354.296	2.9952

120.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.5578	123.878	104.938	1.2203
					122.00	1.5703	125.987	106.894	1.2378
					123.00	1.5832	128.137	108.888	1.2555
					124.00	1.5964	130.290	110.879	1.2731
					125.00	1.6100	132.434	112.858	1.2904
66.00	1.1429	15.7709	1.8747	.0284	126.00	1.6240	134.552	114.805	1.3074
67.00	1.1476	17.7542	3.8002	.0583	127.00	1.6384	136.739	116.818	1.3249
68.00	1.1525	19.7396	5.7268	.0877	128.00	1.6532	139.113	119.011	1.3435
69.00	1.1574	21.7258	7.6533	.1167	129.00	1.6685	141.480	121.193	1.3619
70.00	1.1624	23.7117	9.5786	.1453	130.00	1.6842	143.842	123.364	1.3802
71.00	1.1674	25.6964	11.5016	.1734	131.00	1.7004	146.202	125.527	1.3983
72.00	1.1726	27.6789	13.4216	.2011	132.00	1.7171	148.560	127.682	1.4162
73.00	1.1778	29.6585	15.3376	.2284	133.00	1.7343	150.920	129.832	1.4340
74.00	1.1831	31.6345	17.2492	.2553	134.00	1.7521	153.281	131.977	1.4517
75.00	1.1885	33.6063	19.1557	.2818	135.00	1.7705	155.646	134.119	1.4693
76.00	1.1939	35.5737	21.0567	.3078	136.00	1.7894	158.015	136.258	1.4867
77.00	1.1995	37.5362	22.9520	.3335	137.00	1.8090	160.390	138.395	1.5042
78.00	1.2051	39.4937	24.8413	.3588	138.00	1.8292	162.772	140.531	1.5215
79.00	1.2108	41.4461	26.7246	.3836	139.00	1.8501	165.162	142.666	1.5387
80.00	1.2165	43.3936	28.6020	.4081	140.00	1.8717	167.559	144.802	1.5559
81.00	1.2224	45.3363	30.4736	.4323	141.00	1.8940	169.966	146.937	1.5730
82.00	1.2283	47.2745	32.3398	.4560	142.00	1.9171	172.382	149.073	1.5901
83.00	1.2343	49.2087	34.2008	.4795	143.00	1.9409	174.808	151.209	1.6071
84.00	1.2404	51.1393	36.0572	.5026	144.00	1.9655	177.243	153.345	1.6241
85.00	1.2466	53.0669	37.9097	.5254	145.00	1.9909	179.688	155.481	1.6410
86.00	1.2529	54.9921	39.7587	.5479	146.00	2.0172	182.143	157.616	1.6579
87.00	1.2592	56.9159	41.6050	.5702	147.00	2.0443	184.607	159.750	1.6747
88.00	1.2657	58.8389	43.4495	.5922	148.00	2.0722	187.079	161.883	1.6915
89.00	1.2722	60.7620	45.2930	.6139	149.00	2.1010	189.558	164.012	1.7082
90.00	1.2789	62.6861	47.1362	.6354	150.00	2.1306	192.045	166.138	1.7248
91.00	1.2856	64.6121	48.9801	.6567	151.00	2.1612	194.537	168.260	1.7414
92.00	1.2925	66.5410	50.8256	.6778	152.00	2.1925	197.034	170.375	1.7578
93.00	1.2995	68.4736	52.6736	.6986	153.00	2.2247	199.533	172.483	1.7742
94.00	1.3065	70.4109	54.5249	.7194	154.00	2.2577	202.034	174.583	1.7905
95.00	1.3137	72.3538	56.3803	.7399	155.00	2.2916	204.535	176.672	1.8067
96.00	1.3210	74.3030	58.2407	.7603	156.00	2.3262	207.035	178.751	1.8228
97.00	1.3284	76.2594	60.1069	.7806	157.00	2.3615	209.530	180.816	1.8387
98.00	1.3360	78.2238	61.9793	.8008	158.00	2.3976	212.021	182.868	1.8546
99.00	1.3437	80.1966	63.8588	.8208	159.00	2.4344	214.504	184.904	1.8702
100.00	1.3515	82.1785	65.7456	.8407	160.00	2.4718	216.979	186.924	1.8857
101.00	1.3595	84.1699	67.6403	.8605	161.00	2.5098	219.443	188.927	1.9011
102.00	1.3676	86.1711	69.5431	.8802	162.00	2.5484	221.896	190.910	1.9163
103.00	1.3758	88.1825	71.4541	.8999	163.00	2.5875	224.335	192.874	1.9313
104.00	1.3842	90.2040	73.3735	.9194	164.00	2.6271	226.760	194.817	1.9461
105.00	1.3928	92.2358	75.3011	.9388	165.00	2.6670	229.168	196.739	1.9608
106.00	1.4015	94.2511	77.2103	.9579	166.00	2.7074	231.559	198.640	1.9752
107.00	1.4104	96.2668	79.1177	.9769	167.00	2.7481	233.932	200.518	1.9895
108.00	1.4195	98.2824	81.0228	.9956	168.00	2.7891	236.286	202.373	2.0035
109.00	1.4288	100.297	82.9249	1.0142	169.00	2.8304	238.621	204.206	2.0174
110.00	1.4382	102.310	84.8231	1.0326	170.00	2.8719	240.935	206.016	2.0310
111.00	1.4479	104.322	86.7166	1.0508	171.00	2.9135	243.228	207.802	2.0445
112.00	1.4578	106.334	88.6091	1.0689	172.00	2.9553	245.499	209.566	2.0577
113.00	1.4679	108.334	90.4858	1.0867	173.00	2.9972	247.749	211.306	2.0708
114.00	1.4782	110.338	92.3646	1.1044	174.00	3.0392	249.978	213.024	2.0836
115.00	1.4888	112.332	94.2304	1.1219	175.00	3.0813	252.184	214.719	2.0962
116.00	1.4996	114.316	96.0827	1.1391	176.00	3.1234	254.369	216.392	2.1087
117.00	1.5106	116.269	97.9012	1.1560	177.00	3.1654	256.532	218.043	2.1209
118.00	1.5220	118.196	99.6898	1.1724	178.00	3.2075	258.673	219.673	2.1330
119.00	1.5336	120.095	101.448	1.1886	179.00	3.2495	260.792	221.281	2.1449
120.00	1.5455	121.958	103.166	1.2043	180.00	3.2915	262.890	222.869	2.1566

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	3.3334	264.967	224.437	2.1681	241.00	5.5728	364.188	296.427	2.6460
182.00	3.3752	267.024	225.985	2.1794	242.00	5.6061	365.586	297.422	2.6518
183.00	3.4168	269.059	227.514	2.1906	243.00	5.6392	366.979	298.412	2.6575
184.00	3.4584	271.075	229.024	2.2016	244.00	5.6723	368.368	299.399	2.6632
185.00	3.4999	273.071	230.516	2.2124	245.00	5.7052	369.752	300.382	2.6689
186.00	3.5412	275.048	231.990	2.2230	246.00	5.7381	371.131	301.362	2.6745
187.00	3.5824	277.005	233.447	2.2335	247.00	5.7709	372.506	302.338	2.6801
188.00	3.6234	278.945	234.887	2.2439	248.00	5.8036	373.877	303.312	2.6856
189.00	3.6643	280.866	236.311	2.2541	249.00	5.8362	375.243	304.282	2.6911
190.00	3.7051	282.769	237.719	2.2641	250.00	5.8687	376.605	305.248	2.6966
191.00	3.7456	284.655	239.112	2.2740	251.00	5.9011	377.963	306.212	2.7020
192.00	3.7860	286.524	240.490	2.2838	252.00	5.9334	379.317	307.173	2.7074
193.00	3.8263	288.377	241.853	2.2934	253.00	5.9657	380.667	308.131	2.7127
194.00	3.8663	290.213	243.202	2.3029	254.00	5.9978	382.013	309.086	2.7180
195.00	3.9062	292.034	244.538	2.3122	255.00	6.0299	383.355	310.038	2.7233
196.00	3.9460	293.840	245.861	2.3215	256.00	6.0619	384.694	310.987	2.7285
197.00	3.9855	295.631	247.171	2.3306	257.00	6.0938	386.029	311.934	2.7337
198.00	4.0249	297.407	248.469	2.3396	258.00	6.1257	387.360	312.878	2.7389
199.00	4.0641	299.169	249.754	2.3485	259.00	6.1575	388.687	313.819	2.7440
200.00	4.1031	300.918	251.028	2.3572	260.00	6.1892	390.012	314.758	2.7491
201.00	4.1420	302.653	252.291	2.3659	261.00	6.2208	391.332	315.694	2.7542
202.00	4.1806	304.375	253.543	2.3744	262.00	6.2523	392.650	316.628	2.7593
203.00	4.2191	306.084	254.784	2.3829	263.00	6.2838	393.964	317.559	2.7643
204.00	4.2575	307.781	256.015	2.3912	264.00	6.3152	395.275	318.488	2.7692
205.00	4.2956	309.466	257.236	2.3994	265.00	6.3466	396.582	319.415	2.7742
206.00	4.3336	311.140	258.447	2.4076	266.00	6.3778	397.887	320.339	2.7791
207.00	4.3715	312.801	259.649	2.4156	267.00	6.4090	399.189	321.261	2.7840
208.00	4.4092	314.452	260.841	2.4236	268.00	6.4402	400.487	322.181	2.7888
209.00	4.4467	316.092	262.025	2.4315	269.00	6.4712	401.783	323.099	2.7937
210.00	4.4840	317.721	263.200	2.4392	270.00	6.5022	403.075	324.015	2.7984
211.00	4.5212	319.340	264.367	2.4469	271.00	6.5332	404.365	324.929	2.8032
212.00	4.5582	320.949	265.526	2.4545	272.00	6.5640	405.652	325.840	2.8080
213.00	4.5951	322.549	266.677	2.4621	273.00	6.5948	406.936	326.750	2.8127
214.00	4.6318	324.138	267.820	2.4695	274.00	6.6256	408.218	327.657	2.8174
215.00	4.6684	325.719	268.956	2.4769	275.00	6.6563	409.497	328.563	2.8220
216.00	4.7048	327.290	270.085	2.4842	276.00	6.6869	410.773	329.467	2.8266
217.00	4.7411	328.853	271.206	2.4914	277.00	6.7175	412.047	330.369	2.8313
218.00	4.7772	330.407	272.321	2.4985	278.00	6.7480	413.318	331.269	2.8358
219.00	4.8132	331.953	273.429	2.5056	279.00	6.7785	414.586	332.167	2.8404
220.00	4.8490	333.490	274.531	2.5126	280.00	6.8089	415.853	333.064	2.8449
221.00	4.8847	335.019	275.626	2.5195	281.00	6.8392	417.116	333.959	2.8494
222.00	4.9203	336.541	276.715	2.5264	282.00	6.8695	418.378	334.852	2.8539
223.00	4.9557	338.055	277.798	2.5332	283.00	6.8997	419.637	335.743	2.8584
224.00	4.9911	339.562	278.875	2.5400	284.00	6.9299	420.894	336.633	2.8628
225.00	5.0262	341.061	279.947	2.5466	285.00	6.9600	422.148	337.521	2.8672
226.00	5.0613	342.553	281.013	2.5533	286.00	6.9901	423.400	338.408	2.8716
227.00	5.0962	344.038	282.074	2.5598	287.00	7.0201	424.651	339.293	2.8760
228.00	5.1310	345.517	283.129	2.5663	288.00	7.0501	425.899	340.176	2.8803
229.00	5.1657	346.989	284.180	2.5727	289.00	7.0800	427.144	341.058	2.8846
230.00	5.2002	348.454	285.225	2.5791	290.00	7.1099	428.388	341.939	2.8889
231.00	5.2346	349.914	286.266	2.5855	291.00	7.1398	429.630	342.818	2.8932
232.00	5.2690	351.367	287.301	2.5917	292.00	7.1695	430.869	343.695	2.8974
233.00	5.3032	352.814	288.333	2.5980	293.00	7.1993	432.107	344.571	2.9017
234.00	5.3372	354.255	289.359	2.6041	294.00	7.2289	433.343	345.446	2.9059
235.00	5.3712	355.690	290.381	2.6103	295.00	7.2586	434.577	346.320	2.9101
236.00	5.4051	357.120	291.399	2.6163	296.00	7.2882	435.808	347.192	2.9142
237.00	5.4388	358.544	292.413	2.6224	297.00	7.3177	437.038	348.062	2.9184
238.00	5.4725	359.963	293.423	2.6283	298.00	7.3472	438.267	348.932	2.9225
239.00	5.5061	361.376	294.428	2.6343	299.00	7.3767	439.493	349.800	2.9266
240.00	5.5395	362.784	295.430	2.6401	300.00	7.4061	440.717	350.667	2.9307

140.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.5285	124.148	102.466	1.1967
					122.00	1.5396	126.187	104.347	1.2136
					123.00	1.5509	128.264	106.263	1.2307
					124.00	1.5625	130.340	108.174	1.2477
					125.00	1.5744	132.403	110.069	1.2644
					126.00	1.5866	134.436	111.929	1.2807
67.00	1.1439	19.4338	3.2070	.0487	127.00	1.5990	136.534	113.851	1.2975
68.00	1.1486	21.4084	5.1148	.0779	128.00	1.6118	138.814	115.951	1.3153
69.00	1.1534	23.3840	7.0225	.1068	129.00	1.6248	141.083	118.034	1.3330
70.00	1.1583	25.3592	8.9289	.1352	130.00	1.6382	143.343	120.104	1.3505
71.00	1.1632	27.3332	10.8329	.1632	131.00	1.6519	145.595	122.162	1.3677
72.00	1.1682	29.3050	12.7337	.1908	132.00	1.6660	147.841	124.208	1.3848
73.00	1.1733	31.2737	14.6305	.2179	133.00	1.6804	150.082	126.245	1.4017
74.00	1.1784	33.2388	16.5226	.2447	134.00	1.6951	152.320	128.273	1.4185
75.00	1.1836	35.1995	18.4094	.2710	135.00	1.7103	154.555	130.294	1.4351
76.00	1.1889	37.1556	20.2904	.2969	136.00	1.7258	156.789	132.307	1.4516
77.00	1.1943	39.1066	22.1654	.3224	137.00	1.7418	159.023	134.315	1.4679
78.00	1.1997	41.0524	24.0342	.3475	138.00	1.7582	161.257	136.317	1.4842
79.00	1.2052	42.9928	25.8967	.3722	139.00	1.7749	163.494	138.315	1.5003
80.00	1.2108	44.9280	27.7528	.3966	140.00	1.7922	165.732	140.309	1.5164
81.00	1.2164	46.8581	29.6028	.4205	141.00	1.8099	167.973	142.299	1.5323
82.00	1.2221	48.7834	31.4470	.4442	142.00	1.8281	170.218	144.286	1.5482
83.00	1.2279	50.7041	33.2856	.4675	143.00	1.8467	172.466	146.270	1.5640
84.00	1.2338	52.6209	35.1191	.4904	144.00	1.8658	174.718	148.251	1.5797
85.00	1.2397	54.5343	36.9481	.5131	145.00	1.8855	176.975	150.229	1.5953
86.00	1.2458	56.4449	38.7732	.5354	146.00	1.9056	179.237	152.205	1.6108
87.00	1.2519	58.3535	40.5951	.5575	147.00	1.9263	181.503	154.178	1.6263
88.00	1.2581	60.2607	42.4145	.5793	148.00	1.9475	183.774	156.148	1.6417
89.00	1.2643	62.1675	44.2323	.6008	149.00	1.9692	186.049	158.115	1.6570
90.00	1.2707	64.0747	46.0492	.6221	150.00	1.9915	188.329	160.079	1.6723
91.00	1.2771	65.9831	47.8661	.6432	151.00	2.0143	190.612	162.039	1.6874
92.00	1.2837	67.8937	49.6839	.6641	152.00	2.0376	192.899	163.995	1.7025
93.00	1.2903	69.8073	51.5035	.6848	153.00	2.0615	195.190	165.946	1.7175
94.00	1.2971	71.7248	53.3255	.7053	154.00	2.0860	197.482	167.892	1.7325
95.00	1.3039	73.6471	55.1510	.7256	155.00	2.1110	199.777	169.832	1.7473
96.00	1.3108	75.5750	56.9805	.7458	156.00	2.1365	202.073	171.766	1.7621
97.00	1.3178	77.5090	58.8148	.7659	157.00	2.1625	204.370	173.693	1.7768
98.00	1.3250	79.4501	60.6545	.7858	158.00	2.1891	206.666	175.613	1.7914
99.00	1.3322	81.3986	62.5002	.8055	159.00	2.2162	208.962	177.524	1.8058
100.00	1.3396	83.3552	64.3523	.8252	160.00	2.2438	211.255	179.426	1.8202
101.00	1.3471	85.3202	66.2111	.8448	161.00	2.2718	213.545	181.318	1.8345
102.00	1.3547	87.2938	68.0769	.8642	162.00	2.3004	215.831	183.200	1.8486
103.00	1.3624	89.2763	69.9498	.8835	163.00	2.3293	218.113	185.070	1.8627
104.00	1.3703	91.2677	71.8298	.9028	164.00	2.3588	220.389	186.929	1.8766
105.00	1.3783	93.2680	73.7167	.9219	165.00	2.3886	222.659	188.776	1.8904
106.00	1.3864	95.2504	75.5837	.9407	166.00	2.4188	224.921	190.609	1.9041
107.00	1.3947	97.2316	77.4477	.9593	167.00	2.4494	227.175	192.429	1.9176
108.00	1.4031	99.2111	79.3078	.9777	168.00	2.4803	229.420	194.235	1.9310
109.00	1.4116	101.188	81.1633	.9960	169.00	2.5116	231.655	196.026	1.9443
110.00	1.4204	103.162	83.0134	1.0140	170.00	2.5432	233.879	197.803	1.9574
111.00	1.4293	105.132	84.8569	1.0319	171.00	2.5750	236.092	199.564	1.9704
112.00	1.4383	107.101	86.6978	1.0496	172.00	2.6071	238.293	201.310	1.9832
113.00	1.4475	109.055	88.5209	1.0670	173.00	2.6395	240.482	203.040	1.9959
114.00	1.4570	111.012	90.3441	1.0842	174.00	2.6720	242.657	204.754	2.0084
115.00	1.4666	112.956	92.1524	1.1013	175.00	2.7048	244.820	206.451	2.0208
116.00	1.4763	114.888	93.9450	1.1181	176.00	2.7377	246.968	208.133	2.0331
117.00	1.4863	116.786	95.7015	1.1344	177.00	2.7708	249.103	209.798	2.0452
118.00	1.4965	118.655	97.4258	1.1504	178.00	2.8040	251.222	211.447	2.0571
119.00	1.5070	120.494	99.1173	1.1660	179.00	2.8373	253.327	213.079	2.0689
120.00	1.5176	122.293	100.766	1.1812	180.00	2.8707	255.418	214.695	2.0805

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	2.9042	257.493	216.295	2.0920	241.00	4.8074	359.496	291.301	2.5830
182.00	2.9378	259.553	217.879	2.1034	242.00	4.8364	360.938	292.332	2.5890
183.00	2.9714	261.597	219.446	2.1146	243.00	4.8652	362.375	293.360	2.5949
184.00	3.0051	263.627	220.998	2.1257	244.00	4.8940	363.807	294.384	2.6008
185.00	3.0388	265.641	222.535	2.1366	245.00	4.9227	365.234	295.403	2.6067
186.00	3.0725	267.640	224.056	2.1474	246.00	4.9513	366.656	296.419	2.6124
187.00	3.1061	269.624	225.562	2.1580	247.00	4.9799	368.073	297.431	2.6182
188.00	3.1398	271.593	227.053	2.1685	248.00	5.0083	369.485	298.439	2.6239
189.00	3.1735	273.546	228.529	2.1789	249.00	5.0367	370.892	299.444	2.6296
190.00	3.2071	275.485	229.991	2.1891	250.00	5.0651	372.295	300.445	2.6352
191.00	3.2407	277.410	231.438	2.1992	251.00	5.0933	373.693	301.442	2.6408
192.00	3.2743	279.319	232.872	2.2092	252.00	5.1215	375.087	302.436	2.6463
193.00	3.3078	281.215	234.293	2.2190	253.00	5.1496	376.476	303.427	2.6518
194.00	3.3412	283.096	235.699	2.2287	254.00	5.1776	377.861	304.414	2.6573
195.00	3.3746	284.963	237.093	2.2383	255.00	5.2056	379.242	305.398	2.6627
196.00	3.4079	286.817	238.474	2.2478	256.00	5.2335	380.619	306.379	2.6681
197.00	3.4411	288.657	239.843	2.2572	257.00	5.2613	381.991	307.357	2.6734
198.00	3.4742	290.484	241.200	2.2664	258.00	5.2891	383.360	308.332	2.6788
199.00	3.5073	292.297	242.544	2.2756	259.00	5.3168	384.725	309.304	2.6840
200.00	3.5403	294.098	243.877	2.2846	260.00	5.3444	386.085	310.272	2.6893
201.00	3.5732	295.886	245.199	2.2935	261.00	5.3720	387.442	311.238	2.6945
202.00	3.6060	297.662	246.509	2.3023	262.00	5.3995	388.796	312.202	2.6997
203.00	3.6387	299.426	247.809	2.3110	263.00	5.4269	390.145	313.162	2.7048
204.00	3.6713	301.177	249.098	2.3196	264.00	5.4543	391.491	314.120	2.7099
205.00	3.7038	302.918	250.377	2.3281	265.00	5.4816	392.834	315.075	2.7150
206.00	3.7362	304.646	251.646	2.3366	266.00	5.5089	394.173	316.027	2.7200
207.00	3.7685	306.364	252.905	2.3449	267.00	5.5361	395.509	316.977	2.7250
208.00	3.8007	308.070	254.155	2.3531	268.00	5.5632	396.841	317.924	2.7300
209.00	3.8328	309.766	255.395	2.3612	269.00	5.5903	398.170	318.869	2.7350
210.00	3.8648	311.451	256.626	2.3693	270.00	5.6173	399.496	319.811	2.7399
211.00	3.8967	313.126	257.848	2.3772	271.00	5.6443	400.818	320.751	2.7448
212.00	3.9285	314.790	259.062	2.3851	272.00	5.6712	402.138	321.689	2.7496
213.00	3.9602	316.445	260.267	2.3929	273.00	5.6981	403.454	322.624	2.7545
214.00	3.9918	318.090	261.464	2.4006	274.00	5.7249	404.768	323.557	2.7593
215.00	4.0233	319.726	262.653	2.4082	275.00	5.7516	406.078	324.488	2.7640
216.00	4.0547	321.352	263.834	2.4158	276.00	5.7783	407.385	325.417	2.7688
217.00	4.0860	322.969	265.008	2.4232	277.00	5.8050	408.690	326.343	2.7735
218.00	4.1171	324.578	266.174	2.4306	278.00	5.8316	409.992	327.268	2.7782
219.00	4.1482	326.177	267.333	2.4379	279.00	5.8581	411.291	328.190	2.7829
220.00	4.1792	327.768	268.485	2.4452	280.00	5.8846	412.587	329.111	2.7875
221.00	4.2100	329.351	269.629	2.4524	281.00	5.9111	413.880	330.029	2.7921
222.00	4.2408	330.925	270.767	2.4595	282.00	5.9375	415.171	330.945	2.7967
223.00	4.2715	332.492	271.899	2.4665	283.00	5.9638	416.459	331.860	2.8013
224.00	4.3021	334.051	273.024	2.4735	284.00	5.9901	417.745	332.772	2.8058
225.00	4.3325	335.602	274.143	2.4804	285.00	6.0164	419.028	333.683	2.8103
226.00	4.3629	337.145	275.256	2.4873	286.00	6.0426	420.309	334.592	2.8148
227.00	4.3932	338.681	276.362	2.4940	287.00	6.0687	421.587	335.499	2.8193
228.00	4.4233	340.211	277.463	2.5008	288.00	6.0949	422.863	336.404	2.8237
229.00	4.4534	341.732	278.558	2.5074	289.00	6.1209	424.136	337.308	2.8281
230.00	4.4834	343.248	279.648	2.5140	290.00	6.1470	425.407	338.209	2.8325
231.00	4.5133	344.756	280.732	2.5206	291.00	6.1729	426.676	339.110	2.8369
232.00	4.5431	346.257	281.811	2.5270	292.00	6.1989	427.942	340.008	2.8412
233.00	4.5728	347.753	282.885	2.5335	293.00	6.2248	429.206	340.905	2.8455
234.00	4.6025	349.242	283.953	2.5399	294.00	6.2506	430.468	341.800	2.8498
235.00	4.6320	350.724	285.017	2.5462	295.00	6.2765	431.728	342.694	2.8541
236.00	4.6615	352.201	286.076	2.5524	296.00	6.3022	432.986	343.586	2.8584
237.00	4.6908	353.671	287.130	2.5587	297.00	6.3280	434.241	344.476	2.8626
238.00	4.7201	355.136	288.179	2.5648	298.00	6.3537	435.495	345.365	2.8668
239.00	4.7493	356.595	289.224	2.5710	299.00	6.3793	436.746	346.253	2.8710
240.00	4.7784	358.048	290.264	2.5770	300.00	6.4049	437.996	347.139	2.8752

160.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.5036	124.660	100.284	1.1756
					122.00	1.5136	126.646	102.108	1.1920
					123.00	1.5238	128.668	103.964	1.2087
					124.00	1.5342	130.686	105.814	1.2252
					125.00	1.5448	132.690	107.645	1.2414
					126.00	1.5557	134.660	109.440	1.2572
67.00	1.1403	21.1221	2.6358	.0393	127.00	1.5667	136.694	111.294	1.2735
68.00	1.1449	23.0866	4.5258	.0684	128.00	1.5780	138.906	113.324	1.2908
69.00	1.1495	25.0520	6.4157	.0971	129.00	1.5895	141.104	115.336	1.3079
70.00	1.1543	27.0173	8.3042	.1254	130.00	1.6012	143.291	117.331	1.3248
71.00	1.1591	28.9812	10.1903	.1533	131.00	1.6132	145.466	119.313	1.3415
72.00	1.1639	30.9429	12.0732	.1807	132.00	1.6255	147.633	121.281	1.3580
73.00	1.1689	32.9016	13.9518	.2077	133.00	1.6379	149.791	123.237	1.3742
74.00	1.1739	34.8565	15.8256	.2343	134.00	1.6507	151.943	125.182	1.3904
75.00	1.1789	36.8070	17.6940	.2605	135.00	1.6637	154.089	127.117	1.4063
76.00	1.1841	38.7527	19.5565	.2863	136.00	1.6771	156.231	129.043	1.4221
77.00	1.1893	40.6931	21.4127	.3116	137.00	1.6907	158.369	130.961	1.4378
78.00	1.1945	42.6282	23.2624	.3366	138.00	1.7045	160.505	132.871	1.4533
79.00	1.1999	44.5577	25.1056	.3612	139.00	1.7187	162.638	134.774	1.4687
80.00	1.2053	46.4817	26.9421	.3854	140.00	1.7332	164.771	136.671	1.4840
81.00	1.2107	48.4004	28.7723	.4092	141.00	1.7481	166.903	138.563	1.4992
82.00	1.2162	50.3139	30.5962	.4327	142.00	1.7632	169.034	140.449	1.5143
83.00	1.2218	52.2227	32.4143	.4558	143.00	1.7787	171.167	142.331	1.5292
84.00	1.2275	54.1271	34.2269	.4786	144.00	1.7945	173.300	144.207	1.5441
85.00	1.2332	56.0277	36.0346	.5011	145.00	1.8107	175.434	146.080	1.5589
86.00	1.2390	57.9252	37.8379	.5233	146.00	1.8272	177.570	147.948	1.5735
87.00	1.2449	59.8202	39.6377	.5452	147.00	1.8440	179.708	149.813	1.5881
88.00	1.2509	61.7135	41.4345	.5669	148.00	1.8612	181.848	151.674	1.6026
89.00	1.2569	63.6059	43.2291	.5883	149.00	1.8788	183.990	153.531	1.6171
90.00	1.2630	65.4981	45.0224	.6094	150.00	1.8968	186.134	155.384	1.6314
91.00	1.2692	67.3911	46.8152	.6303	151.00	1.9151	188.280	157.233	1.6457
92.00	1.2754	69.2857	48.6083	.6510	152.00	1.9338	190.429	159.078	1.6598
93.00	1.2818	71.1827	50.4025	.6715	153.00	1.9529	192.579	160.919	1.6739
94.00	1.2882	73.0831	52.1987	.6919	154.00	1.9723	194.731	162.756	1.6880
95.00	1.2947	74.9875	53.9975	.7120	155.00	1.9921	196.884	164.588	1.7019
96.00	1.3013	76.8968	55.7998	.7320	156.00	2.0123	199.039	166.415	1.7158
97.00	1.3080	78.8117	57.6062	.7519	157.00	2.0329	201.195	168.237	1.7295
98.00	1.3148	80.7328	59.4173	.7716	158.00	2.0538	203.351	170.054	1.7432
99.00	1.3217	82.6605	61.2336	.7911	159.00	2.0752	205.507	171.865	1.7568
100.00	1.3287	84.5955	63.0555	.8106	160.00	2.0968	207.664	173.670	1.7703
101.00	1.3357	86.5381	64.8833	.8299	161.00	2.1189	209.819	175.468	1.7838
102.00	1.3429	88.4884	66.7172	.8491	162.00	2.1413	211.974	177.259	1.7971
103.00	1.3502	90.4466	68.5573	.8682	163.00	2.1640	214.126	179.043	1.8104
104.00	1.3576	92.4128	70.4036	.8872	164.00	2.1871	216.277	180.819	1.8235
105.00	1.3651	94.3868	72.2559	.9061	165.00	2.2105	218.424	182.587	1.8366
106.00	1.3727	96.3418	74.0873	.9246	166.00	2.2343	220.569	184.347	1.8495
107.00	1.3805	98.2945	75.9145	.9430	167.00	2.2583	222.709	186.097	1.8624
108.00	1.3883	100.244	77.7369	.9611	168.00	2.2827	224.845	187.839	1.8751
109.00	1.3963	102.191	79.5535	.9791	169.00	2.3073	226.976	189.570	1.8878
110.00	1.4044	104.132	81.3635	.9968	170.00	2.3322	229.102	191.292	1.9003
111.00	1.4127	106.068	83.1658	1.0144	171.00	2.3574	231.221	193.003	1.9128
112.00	1.4211	108.003	84.9641	1.0317	172.00	2.3829	233.334	194.704	1.9251
113.00	1.4296	109.920	86.7434	1.0488	173.00	2.4085	235.441	196.393	1.9373
114.00	1.4383	111.839	88.5214	1.0658	174.00	2.4345	237.539	198.072	1.9494
115.00	1.4471	113.744	90.2831	1.0825	175.00	2.4606	239.630	199.739	1.9614
116.00	1.4561	115.634	92.0276	1.0989	176.00	2.4869	241.712	201.394	1.9732
117.00	1.4653	117.489	93.7345	1.1149	177.00	2.5135	243.785	203.037	1.9850
118.00	1.4746	119.314	95.4077	1.1305	178.00	2.5402	245.850	204.669	1.9966
119.00	1.4841	121.106	97.0465	1.1457	179.00	2.5670	247.905	206.288	2.0081
120.00	1.4937	122.856	98.6403	1.1605	180.00	2.5941	249.950	207.895	2.0195

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	2.6212	251.985	209.490	2.0308	241.00	4.2516	355.365	286.438	2.5279
182.00	2.6485	254.009	211.072	2.0419	242.00	4.2771	356.843	287.503	2.5340
183.00	2.6759	256.023	212.642	2.0530	243.00	4.3025	358.315	288.563	2.5401
184.00	2.7034	258.027	214.199	2.0639	244.00	4.3279	359.782	289.619	2.5461
185.00	2.7310	260.019	215.744	2.0747	245.00	4.3532	361.244	290.670	2.5521
186.00	2.7587	262.000	217.276	2.0854	246.00	4.3784	362.700	291.717	2.5581
187.00	2.7865	263.970	218.796	2.0959	247.00	4.4036	364.152	292.760	2.5639
188.00	2.8143	265.929	220.303	2.1064	248.00	4.4287	365.598	293.799	2.5698
189.00	2.8422	267.877	221.799	2.1167	249.00	4.4538	367.039	294.834	2.5756
190.00	2.8702	269.813	223.282	2.1269	250.00	4.4788	368.475	295.865	2.5813
191.00	2.8981	271.737	224.753	2.1370	251.00	4.5037	369.907	296.893	2.5871
192.00	2.9261	273.650	226.212	2.1470	252.00	4.5286	371.334	297.916	2.5927
193.00	2.9541	275.551	227.659	2.1569	253.00	4.5534	372.756	298.936	2.5984
194.00	2.9822	277.441	229.094	2.1667	254.00	4.5782	374.174	299.952	2.6040
195.00	3.0102	279.320	230.518	2.1763	255.00	4.6029	375.587	300.965	2.6095
196.00	3.0383	281.187	231.931	2.1859	256.00	4.6276	376.996	301.974	2.6150
197.00	3.0663	283.043	233.332	2.1953	257.00	4.6522	378.401	302.980	2.6205
198.00	3.0943	284.887	234.722	2.2047	258.00	4.6767	379.801	303.982	2.6259
199.00	3.1224	286.721	236.101	2.2139	259.00	4.7012	381.197	304.981	2.6313
200.00	3.1503	288.543	237.470	2.2230	260.00	4.7256	382.589	305.977	2.6367
201.00	3.1783	290.355	238.828	2.2321	261.00	4.7500	383.977	306.970	2.6420
202.00	3.2063	292.155	240.175	2.2410	262.00	4.7743	385.361	307.960	2.6473
203.00	3.2342	293.945	241.513	2.2498	263.00	4.7986	386.741	308.946	2.6526
204.00	3.2620	295.724	242.840	2.2586	264.00	4.8228	388.117	309.930	2.6578
205.00	3.2899	297.493	244.158	2.2672	265.00	4.8470	389.490	310.911	2.6630
206.00	3.3176	299.251	245.465	2.2758	266.00	4.8711	390.859	311.889	2.6681
207.00	3.3454	300.999	246.764	2.2842	267.00	4.8952	392.224	312.864	2.6733
208.00	3.3731	302.737	248.053	2.2926	268.00	4.9192	393.585	313.836	2.6784
209.00	3.4007	304.465	249.333	2.3009	269.00	4.9431	394.943	314.805	2.6834
210.00	3.4283	306.183	250.604	2.3091	270.00	4.9671	396.298	315.772	2.6884
211.00	3.4558	307.892	251.866	2.3172	271.00	4.9909	397.649	316.736	2.6934
212.00	3.4833	309.591	253.120	2.3253	272.00	5.0147	398.996	317.697	2.6984
213.00	3.5107	311.280	254.365	2.3332	273.00	5.0385	400.341	318.656	2.7033
214.00	3.5381	312.961	255.602	2.3411	274.00	5.0623	401.682	319.613	2.7082
215.00	3.5654	314.632	256.831	2.3489	275.00	5.0859	403.020	320.567	2.7131
216.00	3.5926	316.295	258.052	2.3566	276.00	5.1096	404.355	321.518	2.7180
217.00	3.6197	317.948	259.265	2.3642	277.00	5.1332	405.686	322.468	2.7228
218.00	3.6468	319.594	260.471	2.3718	278.00	5.1567	407.015	323.414	2.7276
219.00	3.6739	321.230	261.669	2.3793	279.00	5.1802	408.340	324.359	2.7323
220.00	3.7009	322.858	262.860	2.3867	280.00	5.2037	409.663	325.301	2.7371
221.00	3.7278	324.478	264.044	2.3941	281.00	5.2271	410.983	326.241	2.7418
222.00	3.7546	326.090	265.221	2.4013	282.00	5.2505	412.300	327.179	2.7464
223.00	3.7814	327.695	266.391	2.4085	283.00	5.2738	413.614	328.115	2.7511
224.00	3.8081	329.291	267.555	2.4157	284.00	5.2971	414.925	329.049	2.7557
225.00	3.8347	330.880	268.712	2.4228	285.00	5.3203	416.233	329.980	2.7603
226.00	3.8613	332.461	269.862	2.4298	286.00	5.3435	417.539	330.910	2.7649
227.00	3.8877	334.035	271.007	2.4367	287.00	5.3667	418.842	331.837	2.7694
228.00	3.9142	335.601	272.145	2.4436	288.00	5.3898	420.142	332.763	2.7740
229.00	3.9405	337.161	273.277	2.4504	289.00	5.4129	421.440	333.686	2.7785
230.00	3.9668	338.713	274.403	2.4572	290.00	5.4360	422.735	334.608	2.7829
231.00	3.9930	340.259	275.524	2.4639	291.00	5.4590	424.028	335.527	2.7874
232.00	4.0192	341.798	276.639	2.4705	292.00	5.4819	425.318	336.445	2.7918
233.00	4.0453	343.330	277.748	2.4771	293.00	5.5049	426.606	337.361	2.7962
234.00	4.0713	344.856	278.852	2.4837	294.00	5.5278	427.892	338.276	2.8006
235.00	4.0973	346.376	279.951	2.4902	295.00	5.5506	429.175	339.188	2.8049
236.00	4.1231	347.889	281.045	2.4966	296.00	5.5735	430.456	340.099	2.8093
237.00	4.1490	349.396	282.133	2.5030	297.00	5.5962	431.734	341.008	2.8136
238.00	4.1747	350.897	283.216	2.5093	298.00	5.6190	433.010	341.915	2.8179
239.00	4.2004	352.392	284.295	2.5155	299.00	5.6417	434.284	342.821	2.8221
240.00	4.2260	353.881	285.369	2.5218	300.00	5.6644	435.556	343.725	2.8264

180.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
					121.00	1.4819	125.355	98.3274	1.1563
					122.00	1.4911	127.299	100.104	1.1724
					123.00	1.5004	129.278	101.913	1.1887
					124.00	1.5099	131.251	103.713	1.2049
					125.00	1.5195	133.208	105.494	1.2207
					126.00	1.5294	135.130	107.237	1.2362
67.00	1.1368	22.8185	2.0854	.0302	127.00	1.5393	137.114	109.038	1.2520
68.00	1.1413	24.7733	3.9584	.0592	128.00	1.5495	139.274	111.014	1.2689
69.00	1.1458	26.7291	5.8314	.0877	129.00	1.5598	141.419	112.970	1.2856
70.00	1.1504	28.6849	7.7030	.1159	130.00	1.5704	143.550	114.909	1.3021
71.00	1.1551	30.6394	9.5722	.1436	131.00	1.5811	145.668	116.831	1.3183
72.00	1.1598	32.5918	11.4380	.1709	132.00	1.5920	147.775	118.740	1.3343
73.00	1.1646	34.5410	13.2996	.1978	133.00	1.6031	149.872	120.634	1.3502
74.00	1.1695	36.4864	15.1563	.2243	134.00	1.6144	151.961	122.516	1.3658
75.00	1.1744	38.4274	17.0074	.2503	135.00	1.6259	154.041	124.387	1.3813
76.00	1.1794	40.3635	18.8525	.2760	136.00	1.6376	156.116	126.247	1.3966
77.00	1.1845	42.2942	20.6912	.3012	137.00	1.6496	158.184	128.098	1.4117
78.00	1.1896	44.2194	22.5232	.3260	138.00	1.6617	160.248	129.940	1.4268
79.00	1.1948	46.1389	24.3484	.3505	139.00	1.6741	162.307	131.774	1.4416
80.00	1.2000	48.0527	26.1668	.3746	140.00	1.6868	164.363	133.600	1.4564
81.00	1.2053	49.9609	27.9786	.3983	141.00	1.6996	166.417	135.419	1.4710
82.00	1.2106	51.8638	29.7839	.4216	142.00	1.7127	168.468	137.231	1.4855
83.00	1.2160	53.7617	31.5830	.4446	143.00	1.7260	170.518	139.038	1.4999
84.00	1.2215	55.6550	33.3764	.4673	144.00	1.7396	172.567	140.839	1.5141
85.00	1.2271	57.5442	35.1646	.4897	145.00	1.7534	174.615	142.635	1.5283
86.00	1.2327	59.4299	36.9481	.5117	146.00	1.7675	176.662	144.425	1.5424
87.00	1.2383	61.3128	38.7277	.5335	147.00	1.7819	178.710	146.211	1.5564
88.00	1.2441	63.1936	40.5039	.5550	148.00	1.7965	180.758	147.993	1.5702
89.00	1.2499	65.0731	42.2776	.5762	149.00	1.8113	182.806	149.770	1.5840
90.00	1.2557	66.9521	44.0495	.5972	150.00	1.8265	184.855	151.543	1.5977
91.00	1.2617	68.8314	45.8205	.6180	151.00	1.8419	186.904	153.311	1.6114
92.00	1.2677	70.7118	47.5913	.6385	152.00	1.8575	188.954	155.075	1.6249
93.00	1.2738	72.5943	49.3629	.6589	153.00	1.8735	191.005	156.835	1.6383
94.00	1.2799	74.4795	51.1358	.6790	154.00	1.8897	193.057	158.591	1.6517
95.00	1.2861	76.3684	52.9110	.6990	155.00	1.9062	195.110	160.343	1.6650
96.00	1.2925	78.2615	54.6891	.7188	156.00	1.9230	197.163	162.090	1.6782
97.00	1.2988	80.1596	56.4707	.7385	157.00	1.9400	199.217	163.833	1.6913
98.00	1.3053	82.0634	58.2564	.7580	158.00	1.9574	201.271	165.572	1.7044
99.00	1.3119	83.9732	60.0468	.7774	159.00	1.9750	203.325	167.305	1.7173
100.00	1.3185	85.8896	61.8421	.7967	160.00	1.9928	205.380	169.034	1.7302
101.00	1.3252	87.8129	63.6427	.8158	161.00	2.0110	207.434	170.757	1.7430
102.00	1.3320	89.7432	65.4488	.8348	162.00	2.0294	209.488	172.475	1.7557
103.00	1.3389	91.6808	67.2604	.8538	163.00	2.0481	211.541	174.188	1.7684
104.00	1.3459	93.6254	69.0775	.8725	164.00	2.0670	213.594	175.894	1.7809
105.00	1.3530	95.5771	70.8998	.8912	165.00	2.0862	215.644	177.595	1.7934
106.00	1.3602	97.5090	72.7005	.9095	166.00	2.1057	217.694	179.289	1.8058
107.00	1.3675	99.4378	74.4962	.9276	167.00	2.1254	219.741	180.977	1.8181
108.00	1.3749	101.363	76.2862	.9456	168.00	2.1453	221.786	182.658	1.8303
109.00	1.3824	103.283	78.0697	.9633	169.00	2.1655	223.828	184.333	1.8424
110.00	1.3900	105.198	79.8457	.9808	170.00	2.1859	225.867	185.999	1.8544
111.00	1.3978	107.106	81.6131	.9981	171.00	2.2066	227.903	187.659	1.8664
112.00	1.4056	109.012	83.3756	1.0152	172.00	2.2274	229.935	189.310	1.8782
113.00	1.4136	110.899	85.1180	1.0320	173.00	2.2485	231.963	190.953	1.8900
114.00	1.4216	112.787	86.8583	1.0487	174.00	2.2698	233.986	192.589	1.9016
115.00	1.4298	114.660	88.5813	1.0651	175.00	2.2913	236.004	194.215	1.9132
116.00	1.4382	116.516	90.2860	1.0812	176.00	2.3129	238.018	195.834	1.9247
117.00	1.4466	118.337	91.9521	1.0969	177.00	2.3348	240.026	197.443	1.9360
118.00	1.4552	120.125	93.5834	1.1122	178.00	2.3568	242.028	199.043	1.9473
119.00	1.4640	121.880	95.1791	1.1271	179.00	2.3790	244.023	200.634	1.9585
120.00	1.4729	123.592	96.7287	1.1415	180.00	2.4013	246.013	202.216	1.9696

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	2.4238	247.996	203.789	1.9806	241.00	3.8339	351.788	281.864	2.4792
182.00	2.4465	249.971	205.351	1.9914	242.00	3.8565	353.293	282.956	2.4854
183.00	2.4692	251.940	206.905	2.0022	243.00	3.8791	354.793	284.043	2.4916
184.00	2.4921	253.901	208.448	2.0129	244.00	3.9017	356.287	285.126	2.4977
185.00	2.5152	255.854	209.982	2.0235	245.00	3.9242	357.776	286.204	2.5038
186.00	2.5383	257.800	211.505	2.0340	246.00	3.9467	359.259	287.278	2.5099
187.00	2.5615	259.737	213.019	2.0444	247.00	3.9691	360.738	288.348	2.5159
188.00	2.5848	261.666	214.523	2.0547	248.00	3.9915	362.211	289.413	2.5218
189.00	2.6083	263.587	216.016	2.0649	249.00	4.0138	363.679	290.474	2.5277
190.00	2.6318	265.499	217.500	2.0750	250.00	4.0361	365.142	291.531	2.5336
191.00	2.6553	267.403	218.974	2.0849	251.00	4.0583	366.601	292.584	2.5394
192.00	2.6789	269.297	220.437	2.0948	252.00	4.0805	368.054	293.633	2.5452
193.00	2.7026	271.183	221.891	2.1046	253.00	4.1026	369.503	294.678	2.5509
194.00	2.7264	273.060	223.335	2.1143	254.00	4.1247	370.947	295.719	2.5566
195.00	2.7502	274.928	224.769	2.1239	255.00	4.1468	372.387	296.756	2.5623
196.00	2.7740	276.787	226.193	2.1334	256.00	4.1688	373.822	297.790	2.5679
197.00	2.7979	278.637	227.608	2.1429	257.00	4.1907	375.253	298.821	2.5735
198.00	2.8218	280.478	229.013	2.1522	258.00	4.2126	376.679	299.847	2.5790
199.00	2.8457	282.309	230.408	2.1614	259.00	4.2345	378.101	300.870	2.5845
200.00	2.8697	284.132	231.794	2.1705	260.00	4.2563	379.519	301.890	2.5900
201.00	2.8936	285.945	233.170	2.1796	261.00	4.2781	380.932	302.906	2.5954
202.00	2.9176	287.750	234.537	2.1885	262.00	4.2998	382.342	303.919	2.6008
203.00	2.9416	289.545	235.895	2.1974	263.00	4.3215	383.747	304.929	2.6061
204.00	2.9656	291.331	237.243	2.2062	264.00	4.3432	385.149	305.936	2.6115
205.00	2.9896	293.108	238.583	2.2149	265.00	4.3648	386.546	306.939	2.6167
206.00	3.0136	294.877	239.914	2.2235	266.00	4.3863	387.940	307.940	2.6220
207.00	3.0375	296.636	241.236	2.2320	267.00	4.4079	389.330	308.937	2.6272
208.00	3.0615	298.387	242.550	2.2404	268.00	4.4294	390.716	309.931	2.6324
209.00	3.0854	300.129	243.855	2.2488	269.00	4.4508	392.098	310.923	2.6375
210.00	3.1094	301.862	245.151	2.2571	270.00	4.4722	393.477	311.911	2.6427
211.00	3.1333	303.586	246.440	2.2653	271.00	4.4936	394.852	312.897	2.6477
212.00	3.1572	305.302	247.720	2.2734	272.00	4.5149	396.224	313.880	2.6528
213.00	3.1811	307.010	248.992	2.2814	273.00	4.5362	397.592	314.860	2.6578
214.00	3.2049	308.709	250.257	2.2894	274.00	4.5574	398.957	315.837	2.6628
215.00	3.2287	310.400	251.513	2.2973	275.00	4.5786	400.319	316.812	2.6678
216.00	3.2525	312.083	252.762	2.3051	276.00	4.5998	401.677	317.784	2.6727
217.00	3.2762	313.758	254.004	2.3128	277.00	4.6209	403.032	318.754	2.6776
218.00	3.3000	315.424	255.238	2.3205	278.00	4.6420	404.384	319.721	2.6825
219.00	3.3236	317.083	256.465	2.3281	279.00	4.6630	405.732	320.686	2.6873
220.00	3.3473	318.734	257.685	2.3356	280.00	4.6840	407.077	321.648	2.6921
221.00	3.3709	320.378	258.898	2.3430	281.00	4.7050	408.420	322.608	2.6969
222.00	3.3945	322.013	260.104	2.3504	282.00	4.7259	409.759	323.565	2.7017
223.00	3.4180	323.642	261.303	2.3577	283.00	4.7468	411.095	324.520	2.7064
224.00	3.4415	325.263	262.495	2.3650	284.00	4.7677	412.429	325.473	2.7111
225.00	3.4649	326.876	263.681	2.3722	285.00	4.7885	413.759	326.424	2.7158
226.00	3.4883	328.483	264.861	2.3793	286.00	4.8093	415.087	327.372	2.7204
227.00	3.5117	330.082	266.035	2.3864	287.00	4.8301	416.411	328.318	2.7250
228.00	3.5350	331.675	267.202	2.3934	288.00	4.8508	417.733	329.262	2.7296
229.00	3.5583	333.260	268.363	2.4003	289.00	4.8715	419.053	330.204	2.7342
230.00	3.5815	334.839	269.518	2.4072	290.00	4.8922	420.369	331.144	2.7388
231.00	3.6047	336.411	270.668	2.4140	291.00	4.9128	421.683	332.081	2.7433
232.00	3.6278	337.977	271.811	2.4208	292.00	4.9334	422.994	333.017	2.7478
233.00	3.6509	339.536	272.950	2.4275	293.00	4.9539	424.303	333.951	2.7523
234.00	3.6739	341.089	274.082	2.4341	294.00	4.9745	425.609	334.883	2.7567
235.00	3.6969	342.635	275.209	2.4407	295.00	4.9950	426.913	335.812	2.7611
236.00	3.7199	344.176	276.331	2.4473	296.00	5.0154	428.214	336.740	2.7655
237.00	3.7428	345.710	277.448	2.4537	297.00	5.0358	429.513	337.666	2.7699
238.00	3.7656	347.238	278.559	2.4602	298.00	5.0562	430.809	338.591	2.7743
239.00	3.7884	348.760	279.666	2.4666	299.00	5.0766	432.103	339.513	2.7786
240.00	3.8112	350.277	280.767	2.4729	300.00	5.0969	433.394	340.434	2.7829

200.00 ATMOSPHERE ISOBAR

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
68.00	1.1377	26.4677	3.4114	.0501
69.00	1.1422	28.4145	5.2683	.0786
70.00	1.1467	30.3613	7.1238	.1066
71.00	1.1512	32.3070	8.9770	.1342
72.00	1.1559	34.2505	10.8267	.1614
73.00	1.1606	36.1909	12.6723	.1881
74.00	1.1653	38.1275	14.5128	.2145
75.00	1.1701	40.0596	16.3477	.2404
76.00	1.1749	41.9867	18.1764	.2659
77.00	1.1799	43.9085	19.9987	.2910
78.00	1.1848	45.8245	21.8141	.3158
79.00	1.1898	47.7348	23.6226	.3401
80.00	1.1949	49.6393	25.4242	.3641
81.00	1.2001	51.5380	27.2189	.3877
82.00	1.2052	53.4312	29.0069	.4109
83.00	1.2105	55.3191	30.7885	.4338
84.00	1.2158	57.2022	32.5642	.4563
85.00	1.2212	59.0811	34.3344	.4786
86.00	1.2266	60.9562	36.0997	.5005
87.00	1.2320	62.8282	37.8607	.5221
88.00	1.2376	64.6978	39.6181	.5435
89.00	1.2432	66.5657	41.3727	.5646
90.00	1.2488	68.4329	43.1252	.5855
91.00	1.2546	70.3000	44.8764	.6061
92.00	1.2603	72.1679	46.6270	.6265
93.00	1.2662	74.0374	48.3780	.6467
94.00	1.2721	75.9093	50.1301	.6667
95.00	1.2781	77.7843	51.8839	.6866
96.00	1.2841	79.6633	53.6402	.7063
97.00	1.2903	81.5467	55.3997	.7258
98.00	1.2964	83.4353	57.1628	.7451
99.00	1.3027	85.3294	58.9300	.7644
100.00	1.3090	87.2296	60.7018	.7835
101.00	1.3155	89.1361	62.4783	.8024
102.00	1.3220	91.0492	64.2598	.8213
103.00	1.3285	92.9688	66.0463	.8400
104.00	1.3352	94.8950	67.8376	.8586
105.00	1.3419	96.8275	69.6337	.8771
106.00	1.3487	98.7395	71.4075	.8952
107.00	1.3556	100.648	73.1758	.9132
108.00	1.3626	102.552	74.9378	.9309
109.00	1.3697	104.450	76.6925	.9484
110.00	1.3769	106.342	78.4391	.9657
111.00	1.3842	108.227	80.1765	.9828
112.00	1.3916	110.108	81.9083	.9997
113.00	1.3990	111.971	83.6193	1.0163
114.00	1.4066	113.832	85.3275	1.0327
115.00	1.4143	115.678	87.0176	1.0489
116.00	1.4221	117.507	88.6886	1.0648
117.00	1.4300	119.299	90.3203	1.0802
118.00	1.4380	121.057	91.9163	1.0953
119.00	1.4461	122.782	93.4760	1.1099
120.00	1.4544	124.461	94.9887	1.1241
121.00	1.4627	126.192	96.5497	1.1386
122.00	1.4712	128.102	98.2878	1.1544
123.00	1.4798	130.046	100.057	1.1704
124.00	1.4886	131.983	101.817	1.1863
125.00	1.4975	133.902	103.557	1.2018
126.00	1.5065	135.786	105.258	1.2170
127.00	1.5156	137.730	107.016	1.2325
128.00	1.5249	139.849	108.947	1.2491
129.00	1.5343	141.952	110.858	1.2655
130.00	1.5439	144.039	112.751	1.2816
131.00	1.5537	146.112	114.627	1.2975
132.00	1.5635	148.173	116.488	1.3131
133.00	1.5736	150.222	118.333	1.3286
134.00	1.5838	152.261	120.166	1.3439
135.00	1.5942	154.292	121.986	1.3590
136.00	1.6047	156.314	123.795	1.3739
137.00	1.6154	158.329	125.593	1.3887
138.00	1.6263	160.338	127.382	1.4033
139.00	1.6373	162.341	129.161	1.4177
140.00	1.6485	164.339	130.932	1.4321
141.00	1.6599	166.334	132.695	1.4463
142.00	1.6715	168.325	134.451	1.4603
143.00	1.6833	170.313	136.200	1.4743
144.00	1.6953	172.298	137.943	1.4881
145.00	1.7074	174.281	139.680	1.5018
146.00	1.7198	176.263	141.411	1.5155
147.00	1.7324	178.243	143.137	1.5290
148.00	1.7451	180.222	144.858	1.5424
149.00	1.7581	182.201	146.574	1.5557
150.00	1.7712	184.178	148.285	1.5689
151.00	1.7846	186.156	149.992	1.5821
152.00	1.7981	188.133	151.694	1.5951
153.00	1.8119	190.111	153.392	1.6081
154.00	1.8259	192.088	155.086	1.6210
155.00	1.8401	194.065	156.776	1.6338
156.00	1.8545	196.042	158.461	1.6465
157.00	1.8691	198.020	160.142	1.6591
158.00	1.8839	199.997	161.819	1.6717
159.00	1.8990	201.975	163.492	1.6842
160.00	1.9142	203.952	165.161	1.6966
161.00	1.9297	205.929	166.825	1.7089
162.00	1.9453	207.906	168.484	1.7211
163.00	1.9612	209.882	170.139	1.7333
164.00	1.9773	211.858	171.789	1.7454
165.00	1.9935	213.833	173.434	1.7574
166.00	2.0100	215.807	175.074	1.7693
167.00	2.0267	217.779	176.708	1.7811
168.00	2.0436	219.751	178.338	1.7929
169.00	2.0606	221.720	179.961	1.8046
170.00	2.0779	223.688	181.580	1.8162
171.00	2.0953	225.653	183.192	1.8277
172.00	2.1130	227.617	184.798	1.8392
173.00	2.1308	229.577	186.398	1.8506
174.00	2.1487	231.535	187.991	1.8618
175.00	2.1669	233.490	189.578	1.8730
176.00	2.1852	235.441	191.158	1.8842
177.00	2.2036	237.389	192.732	1.8952
178.00	2.2223	239.332	194.298	1.9061
179.00	2.2410	241.272	195.857	1.9170
180.00	2.2600	243.207	197.409	1.9278

TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)	TEMPERATURE (K)	SPECIFIC VOLUME (CC/GM)	ENTHALPY (J/GM)	INTERNAL ENERGY (J/GM)	ENTROPY (J/GM-K)
181.00	2.2790	245.138	198.954	1.9385	241.00	3.5111	348.738	277.586	2.4357
182.00	2.2982	247.064	200.491	1.9491	242.00	3.5314	350.264	278.700	2.4420
183.00	2.3175	248.985	202.020	1.9596	243.00	3.5516	351.783	279.809	2.4483
184.00	2.3370	250.900	203.542	1.9701	244.00	3.5718	353.298	280.914	2.4545
185.00	2.3565	252.810	205.055	1.9804	245.00	3.5920	354.807	282.014	2.4607
186.00	2.3762	254.715	206.561	1.9907	246.00	3.6122	356.311	283.110	2.4668
187.00	2.3960	256.613	208.059	2.0009	247.00	3.6323	357.809	284.201	2.4729
188.00	2.4159	258.506	209.548	2.0110	248.00	3.6523	359.303	285.288	2.4789
189.00	2.4358	260.392	211.030	2.0210	249.00	3.6724	360.792	286.371	2.4849
190.00	2.4559	262.272	212.503	2.0309	250.00	3.6924	362.276	287.450	2.4908
191.00	2.4761	264.145	213.968	2.0407	251.00	3.7124	363.755	288.524	2.4967
192.00	2.4963	266.012	215.425	2.0505	252.00	3.7323	365.229	289.594	2.5026
193.00	2.5166	267.872	216.873	2.0601	253.00	3.7522	366.699	290.661	2.5084
194.00	2.5370	269.725	218.313	2.0697	254.00	3.7721	368.164	291.723	2.5142
195.00	2.5574	271.571	219.745	2.0792	255.00	3.7919	369.624	292.782	2.5199
196.00	2.5779	273.411	221.169	2.0886	256.00	3.8117	371.080	293.836	2.5256
197.00	2.5985	275.243	222.584	2.0979	257.00	3.8314	372.531	294.887	2.5313
198.00	2.6191	277.067	223.991	2.1072	258.00	3.8511	373.978	295.935	2.5369
199.00	2.6398	278.885	225.389	2.1163	259.00	3.8708	375.421	296.978	2.5425
200.00	2.6605	280.695	226.780	2.1254	260.00	3.8905	376.859	298.019	2.5480
201.00	2.6812	282.497	228.162	2.1344	261.00	3.9101	378.293	299.055	2.5536
202.00	2.7020	284.293	229.536	2.1433	262.00	3.9297	379.723	300.088	2.5590
203.00	2.7228	286.080	230.902	2.1521	263.00	3.9492	381.149	301.118	2.5645
204.00	2.7437	287.861	232.260	2.1609	264.00	3.9688	382.571	302.145	2.5699
205.00	2.7645	289.633	233.610	2.1695	265.00	3.9882	383.989	303.168	2.5752
206.00	2.7854	291.399	234.952	2.1781	266.00	4.0077	385.404	304.188	2.5805
207.00	2.8063	293.156	236.287	2.1866	267.00	4.0271	386.814	305.205	2.5858
208.00	2.8272	294.906	237.613	2.1951	268.00	4.0465	388.220	306.219	2.5911
209.00	2.8481	296.649	238.932	2.2034	269.00	4.0658	389.623	307.229	2.5963
210.00	2.8691	298.384	240.243	2.2117	270.00	4.0851	391.022	308.237	2.6015
211.00	2.8900	300.112	241.546	2.2199	271.00	4.1044	392.417	309.242	2.6067
212.00	2.9109	301.833	242.843	2.2281	272.00	4.1236	393.809	310.243	2.6118
213.00	2.9319	303.546	244.131	2.2361	273.00	4.1429	395.197	311.242	2.6169
214.00	2.9528	305.251	245.413	2.2441	274.00	4.1620	396.582	312.238	2.6219
215.00	2.9737	306.949	246.687	2.2520	275.00	4.1812	397.963	313.231	2.6270
216.00	2.9947	308.641	247.954	2.2599	276.00	4.2003	399.341	314.222	2.6320
217.00	3.0156	310.324	249.214	2.2676	277.00	4.2194	400.715	315.210	2.6369
218.00	3.0365	312.001	250.467	2.2754	278.00	4.2384	402.087	316.195	2.6419
219.00	3.0574	313.671	251.713	2.2830	279.00	4.2575	403.455	317.177	2.6468
220.00	3.0782	315.333	252.953	2.2906	280.00	4.2764	404.819	318.157	2.6517
221.00	3.0991	316.989	254.185	2.2981	281.00	4.2954	406.181	319.135	2.6565
222.00	3.1199	318.637	255.412	2.3055	282.00	4.3143	407.539	320.109	2.6614
223.00	3.1408	320.279	256.631	2.3129	283.00	4.3332	408.895	321.082	2.6662
224.00	3.1616	321.914	257.845	2.3202	284.00	4.3521	410.247	322.052	2.6709
225.00	3.1824	323.542	259.052	2.3275	285.00	4.3709	411.596	323.020	2.6757
226.00	3.2031	325.164	260.253	2.3347	286.00	4.3897	412.943	323.985	2.6804
227.00	3.2238	326.779	261.448	2.3418	287.00	4.4085	414.286	324.948	2.6851
228.00	3.2445	328.387	262.637	2.3489	288.00	4.4273	415.626	325.908	2.6897
229.00	3.2652	329.989	263.820	2.3559	289.00	4.4460	416.964	326.867	2.6944
230.00	3.2859	331.585	264.997	2.3628	290.00	4.4647	418.299	327.823	2.6990
231.00	3.3065	333.174	266.168	2.3697	291.00	4.4833	419.631	328.777	2.7036
232.00	3.3271	334.758	267.334	2.3766	292.00	4.5019	420.961	329.729	2.7081
233.00	3.3477	336.335	268.494	2.3833	293.00	4.5205	422.287	330.679	2.7127
234.00	3.3682	337.906	269.649	2.3901	294.00	4.5391	423.611	331.626	2.7172
235.00	3.3887	339.470	270.798	2.3967	295.00	4.5577	424.933	332.572	2.7217
236.00	3.4092	341.029	271.942	2.4034	296.00	4.5762	426.252	333.515	2.7261
237.00	3.4297	342.583	273.081	2.4099	297.00	4.5947	427.568	334.457	2.7306
238.00	3.4501	344.130	274.215	2.4164	298.00	4.6131	428.882	335.397	2.7350
239.00	3.4704	345.672	275.343	2.4229	299.00	4.6316	430.193	336.334	2.7394
240.00	3.4908	347.208	276.467	2.4293	300.00	4.6500	431.502	337.270	2.7438

U. S. DEPARTMENT OF COMMERCE
Luther H. Hodges, *Secretary*

NATIONAL BUREAU OF STANDARDS
A. V. Astin, *Director*

THE NATIONAL BUREAU OF STANDARDS

The scope of activities of the National Bureau of Standards at its major laboratories in Washington, D.C., and Boulder, Colorado, is suggested in the following listing of the divisions and sections engaged in technical work. In general, each section carries out specialized research, development, and engineering in the field indicated by its title. A brief description of the activities, and of the resultant publications, appears on the inside of the front cover.

WASHINGTON, D. C.

Electricity. Resistance and Reactance. Electrochemistry. Electrical Instruments. Magnetic Measurements. Dielectrics. High Voltage.

Metrology. Photometry and Colorimetry. Refractometry. Photographic Research. Length. Engineering Metrology. Mass and Scale. Volumetry and Densimetry.

Heat. Temperature Physics. Heat Measurements. Cryogenic Physics. Equation of State. Statistical Physics.

Radiation Physics. X-ray. Radioactivity. Radiation Theory. High Energy Radiation. Radiological Equipment. Nucleonic Instrumentation. Neutron Physics.

Analytical and Inorganic Chemistry. Pure Substances. Spectrochemistry. Solution Chemistry. Standard Reference Materials. Applied Analytical Research. Crystal Chemistry.

Mechanics. Sound. Pressure and Vacuum. Fluid Mechanics. Engineering Mechanics. Rheology. Combustion Controls.

Polymers. Macromolecules: Synthesis and Structure. Polymer Chemistry. Polymer Physics. Polymer Characterization. Polymer Evaluation and Testing. Applied Polymer Standards and Research. Dental Research.

Metallurgy. Engineering Metallurgy. Microscopy and Diffraction. Metal Reactions. Metal Physics. Electrolysis and Metal Deposition.

Inorganic Solids. Engineering Ceramics. Glass. Solid State Chemistry. Crystal Growth. Physical Properties. Crystallography.

Building Research. Structural Engineering. Fire Research. Mechanical Systems. Organic Building Materials. Codes and Safety Standards. Heat Transfer. Inorganic Building Materials. Metallic Building Materials.

Applied Mathematics. Numerical Analysis. Computation. Statistical Engineering. Mathematical Physics. Operations Research.

Data Processing Systems. Components and Techniques. Computer Technology. Measurements Automation. Engineering Applications. Systems Analysis.

Atomic Physics. Spectroscopy. Infrared Spectroscopy. Solid State Physics. Electron Physics. Atomic Physics.

Instrumentation. Engineering Electronics. Electron Devices. Electronic Instrumentation. Mechanical Instruments. Basic Instrumentation.

Physical Chemistry. Thermochemistry. Surface Chemistry. Organic Chemistry. Molecular Spectroscopy. Molecular Kinetics. Mass Spectrometry.

Office of Weights and Measures.

BOULDER, COLO.

Cryogenic Engineering Laboratory. Cryogenic Equipment. Cryogenic Processes. Properties of Materials. Cryogenic Technical Services.

CENTRAL RADIO PROPAGATION LABORATORY

Ionosphere Research and Propagation. Low Frequency and Very Low Frequency Research. Ionosphere Research. Prediction Services. Sun-Earth Relationships. Field Engineering. Radio Warning Services. Vertical Soundings Research.

Radio Propagation Engineering. Data Reduction Instrumentation. Radio Noise. Tropospheric Measurements. Tropospheric Analysis. Propagation-Terrain Effects. Radio-Meteorology. Lower Atmosphere Physics.

Radio Systems. Applied Electromagnetic Theory. High Frequency and Very High Frequency Research. Modulation Research. Antenna Research. Navigation Systems.

Upper Atmosphere and Space Physics. Upper Atmosphere and Plasma Physics. Ionosphere and Exosphere Scatter. Airglow and Aurora. Ionospheric Radio Astronomy.

RADIO STANDARDS LABORATORY

Radio Physics. Radio Broadcast Service. Radio and Microwave Materials. Atomic Frequency and Time-Interval Standards. Millimeter-Wave Research.

Circuit Standards. High Frequency Electrical Standards. Microwave Circuit Standards. Electronic Calibration Center.


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